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UNITED STATES CIRCUIT COURT OF APPEALS

FOR THE NINTH CIRCUIT

1091

THE SOUTHERN PACIFIC COMPANY, a Corporation,
THE SOUTHERN PACIFIC RAILROAD COMPANY, a Corporation,
HOMER S. KING, Trustee, JAMES K. WILSON, Trustee,
THE CENTRAL TRUST COMPANY OF NEW YORK, a Corporation,
THE EQUITABLE TRUST COMPANY OF NEW YORK, a Corporation,
THE KERN TRADING & OIL COMPANY, a Corporation,
Appellants,

vs,

THE UNITED STATES OF AMERICA,

Appellee.

TRANSCRIPT OF RECORD

ON APPEAL FROM THE DISTRICT COURT OF THE UNITED
STATES OF AMERICA,

IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA,
NORTHERN DIVISION.

Filed

VOLUME V

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R. D. Monckton,
Clerk.

Q. Well, he would compare rather favorably, wouldn't he, so far as education, experience, competency in geological work, after some thirty or forty years of it, particularly in oil geology in different parts of the country and in California, with the experience of a young man like yourself, who had had some training in mineralogy in college, who had done some timber cruising for a railroad company, and who had had three days' experience in the West Side field? You would say, to be fair, that he would compare favorably, at least, with you, in respect of his judgment as to what those hills appeared to be?

A. I think I could say that, as a man and as a geologist, Professor Branner would compare favorably with nearly anybody. The question, it seems to me, is concerning his specific conclusion—not the man himself.

Q. Now, Dr. Branner, after learning the structural formation of those hills, and after making some examination of the line of seepages to which I have referred, made the statement that it was even unnecessary to know anything about the oil seepage or gas blow-out in Section 32, which has been referred to in this case, but that, merely standing at a distance, knowing those facts, a competent geologist would not know his business unless he at once concluded that the Elk Hills were petroleum lands. Do you [2205] concur in that statement of Dr. Branner?

A. I certainly do not. I think—

Q. And you know, too, do you not—

Mr. Lewers: Just a minute. Let him complete his answer.

A. (Continuing) I think his judgment was not based on sufficient data.

Q. By Mr. Mills: You know too, do you not, Mr. Anderson, and have designedly concealed the fact in your testimony here, that the three wells of the Associated Oil Company came in as gushers, and one of them at a rate of more than 2000 barrels the first day, and one of the other wells flowed at the rate of 1000 barrels a day; and are you willing to now state on the record, in the face of those facts, which you must know, that the Elk Hills have no value for petroleum, and, particularly, the lands in this suit?

Mr. Lewers: Object to the question, on the ground that it makes an assumption that there is no foundation whatever for. Counsel for government sometimes says 5000 barrels a day, sometimes two, sometimes three—it depends altogether on the state of his imagination, apparently.

Mr. Mills: Well, it came in at 5000 barrels a day, according to Mr. King, of the Associated Oil Company. I am just cutting it in two, Mr. Lewers.

Mr. Lewers: According to Mr. King where? Where did Mr. King say that?

Mr. Mills: I will show you, before we get through with this case.

Mr. Lewers: You have promised many things, but have not shown any of them.

Mr. Mills : I am not yet having my innings in this case.

Mr. Lewers : You have had your innings.

Mr. Mills: Well, I am going to rebut some statements you [2206] have made.

A. I don't know that the statements made by you are true. I heard, and saw in the papers at the time, that one or two of these wells had flowed at the rate of 300 barrels per day, three or four hundred barrels a day, and I saw evidences on the ground that there had been a spurt of oil; but it was not conclusive of any commercial value and, in fact, taken in connection with the tests that were made, and of which I had official information, I am justified in stating that nothing has been proved yet of commercial value in the Elk Hills.

Q. Did you make the statement, in the month of March, to Mr. Veatch, that you knew the value of those lands in suit for petroleum, but that, due to your connection with the Southern Pacific Company, you could not testify for the government in this case.

A. I did not.

Q. Did Mr. Veatch visit you, in March of 1911, at your office in San Francisco, or meet you there in San Francisco?

Mr. Lewers: 1911 or 1912?

Mr. Mills: 1912.

A. Mr. Veatch sent word to me that he would like to see me.

Q. I am asking you whether he visited you.

A. And I believe he did visit me.

Q. In the month of March, 1912?

A. I would not say whether it was the month of March. He asked me out to lunch with him. We went over to the Palace Hotel.

Q. Well, didn't you state to him, in a conversation with him, that you knew the value of these lands in suit for petroleum, but that you could not testify for the government because of your connection with the Southern Pacific Company?

A. No; I did not tell him any such thing.

Mr. Mills: That is all, sir. [2207]

The Witness: I would like to state what I did tell him.

REDIRECT EXAMINATION OF FRANK M. ANDERSON

By Mr. Lewers:

Q. Proceed.

A. I gave him some insight as to my personal regard for Professor Dumble; and that is as far as I went.

Q. Was there any discussion of the character of the Elk Hills for oil or any other purpose?

A. Not that I recall.

Q. And that was during a social meeting at lunch, was it?

A. Yes. The contents of the conversation was chiefly directed to matters of record, and it included

locations made by the Eight Oil Company and the Buena Vista Land & Development Company.

Q. Was Mr. Veatch using a luncheon engagement for the purpose of interviewing you and getting your knowledge of conditions concerning Mr. Dumble and concerning the Buena Vista Land Company and the Eight Oil Company?

A. I assumed so. He wanted to see what I might be willing to tell him in regard to those matters.

Q. Did he ask you anything about the geology of that country?

A. I don't recall that he did.

Q. Then it was in the nature of obtaining information that was not geological at all, was it?

A. I don't know, of course, what his real purpose was. But I do know that I very guardedly told him only about matters of record, that he probably knew already.

Mr. Lewers: That is all.

RECROSS EXAMINATION
OF FRANK M. ANDERSON

By Mr. Mills: [2208]

Q. Mr. Veatch's primary purpose was to ascertain whether you would testify for the government in this case, was it not, Mr. Anderson?

A. He didn't ask me that.

Q. And didn't you state to him then and there that you were in such a position with the railroad company that you could not do it?

A. Why, what position was I in with the railroad company?

Q. You had been in their employ, and you didn't feel like testifying in this case against them.

A. That is no reason why I should not testify as to the truth, whatever it might be.

Q. I am not asking you whether it is a valid reason or not; I am asking you whether it is the fact.

A. It is not the fact. Now, I never did have any love, nor do I have any love now, for the Southern Pacific Company as a company.

Mr. Mills—I object to that statement and ask that it be stricken from the record.

Mr. Lewers—I ask that it stand. That is all.

[2209]

JAMES M. SHAW, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I was general superintendent of the Rio Bravo property, and was connected with that company since July, 1903, and am now connected with them; the headquarters of the company are now at Houston; in 1904 I was at Sour Lake, in Hardin County, Texas, about 23 miles south of Beaumont; I remember Mr. Griffin very well at Spindletop, Welsh and Sour Lake; I first met him in 1902; he first began work as a mechanical engineer on or about the first or second day of June, 1904; I had no knowledge of Griffin's being employed prior to that date; my

knowledge of the men working in the field prior to the first of June, 1904, was acquired by the time sheets, by the employment; I employed most of the men for the field work, and the time keeper took the time down, and the payrolls were made up at the end of each month; I had known Griffin for quite a while from sometime in 1902; he was not working for the Rio Bravo Oil Company before the first of June, 1904.

The first of June, 1904, Griffin went to work for that company, taking down two 10,000 barrel steel tanks at Gladys; I placed him on the pay-roll, and he reported his time to me, and continued on the pay-roll up to the close of August, 1904. I communicated with Griffin by correspondence, by wire, by telephone, and personally from July 1st to August 28, 1904.

I had talks with Griffin on jobs at Welsh, Saratoga, and Sour Lake; he went to New Orleans to make arrangements for some new bottoms in the tanks which were cut down, and I was in communication with Griffin at all times.

During the time that Mr. Griffin was employed by the Rio Bravo Company did not make a trip to San Francisco with Professor Dumble; if he had done so I would have known it; the only time I knew of Griffin being out of Texas during his employ- [2210] ment with the Rio Bravo Oil Company was the occasions when he went to New Orleans.

Griffin's title during the time he was employed

by the Rio Bravo Oil Company was given as Mechanical Engineer; he did not handle any money; it was all paid through checks; the checks were made payable to the men whose names were on the time sheets. In 1904 there was a treating plant constructed by the Rio Bravo Oil Company at Welsh, Louisiana, and a man by the name of Stillman, an engineer, had something to do with the construction work. I met Stillman at Houston and in Welsh; I am not positive about the date, but I think it was 1904; it seems to me it was in the early Spring that Stillman was there, and Griffin was not working for the company at the time Stillman was there .

I am familiar with Mr. Griffin's handwriting; I have seen him sign the pay sheets time and time again. I identify the document now shown me, marked Defendants' Exhibit 29, as an itemized personal statement signed by T. J. Griffin and approved for payment by E. T. Dumble, covering the month of June, 1904; The signature is in Griffin's handwriting, and the approval is in Mr. Dumble's handwriting; it bears rubber stamp marks, and it is customary at the auditor's office, secretary's office, and my office to stamp on every communication the date it is received.

I identify Defendants' Exhibit 31, and recognize Mr. Griffin's writing on Defendants' Exhibit 32, and identify the document; I also identify the expense account of Griffin for the month of August, 1904, marked "2742," Defendants' Exhibit 33, and iden-

tify Defendants' Exhibit 34, consisting of ten wagon receipts, all signed by Griffin's signature.

The paper shown me marked time sheet roll 278 is a time sheet in favor of T. J. Griffin for services rendered from June 1st, to June 30th, 1904; it was made out in the handwriting of A. J. Aikin, my timekeeper, and was approved by me as Field [2211] Manager or Acting Superintendent, and signed by me; these sheets were sent in from my office to the auditor's office and stamped by the auditor on the day he received them, July 2, 1904, and is marked Defendants' Exhibit 35. I also identify Defendants' Exhibits 36 to 62, consisting of time sheets for work done by Griffin and his men.

I received a letter from Professor Dumble, dated Houston, Texas, May 31, 1904, Defendants' Exhibit 63, asking me to place Griffin on my pay-roll as mechanical engineer; the first time I had seen Griffin in regard to going to work was the day he came to Sour Lake as communicated in my letter to Professor dated June 2, 1904, Defendants' Exhibit No. 64; Griffin first went to work for the Rio Bravo Oil Company June 1, 1904; I saw Griffin at Welsh, Louisiana, shortly after I received Mr. Fay's letter dated July 2, 1904.

On July 30, 1904, I sent a telegram to Griffin at Welsh, Louisiana, dated that day, Defendants' Exhibit 92, as follows: "Your telegram 29th received. Will be in Welsh Monday. Roofing Pitch was shipped Monday. Will investigate delay." I do

not recollect whether I went to Welsh the next day or not, but I went up there at Griffin's request; I was there once a week, and every time I went there I met Mr. Griffin; every time I would go there to meet him he was there; I would know when Griffin went to go to New Orleans.

In 1904 I had passes, but not beyond the state line; all employees in the Rio Bravo Oil Company connected with my office had passes. I wrote a letter dated August 11, 1904, to Griffin at Welsh, Louisiana; he must have been at Welsh at that time, because I addressed him there; I was in close touch with him all the time and communicated with him by mail and by wire, and often by telephone; in case of emergency I always called him and he called me by telephone. [2212]

Plaintiff's Exhibit FFF I identify as a pass for the year 1904 on the Sunset Route; that pass is a facsimile of my own; I have never had a ticket that let me go further than El Paso; El Paso was the farthest point west that I could go on my pass.

CROSS-EXAMINATION

of

JAMES M. SHAW.

I never met James B. Treadwell; he left Beaumont, as far as I can recollect, as early as the Spring of 1903. I know the president of the Rio Bravo Oil Company, C. H. Markham; as far as I know, he was president for two or three years, that is, during the years 1903-1904.

During Mr. Griffin's employment with the Rio Bravo Company he took down two 10,000 barrel tanks to Gladys; one of them he shipped to Welsh and one of them to Sour Lake and erected both of them at those points; he repaired a 35,000 barrel tank at Sour Lake and painted it and he put up two 750 barrel tanks at Welsh and two at Saratoga and that was all the work he was engaged in during the time he was with the Rio Bravo Company. Then I did not keep track of what trips Griffin took until he went into the company. He might have made several trips prior to entering the company. The refining plant at Welsh was completed in 1906. That one vat on lease on the field proper was put up in 1905 and the treating still and vats were put up there in the latter part of 1905 or 1906 and no part of the work with reference to the plant at Welsh was done in 1904 except the new tanks. I remember an inspector or oil testor by the name of Stillman coming there in 1904, and was told that he was from San Francisco. I met him in Houston and went with him to Welsh. About the latter part of 1904, I think in December, they closed down the plant at Welsh and moved the force over to Humble, where there was a new [2213] field.

I will not say that Mr. Griffin was there during every hour of the time of those men when he would be at New Orleans, running from Beaumont to Saratoga, or Saratoga to Welsh,—these different places for which these expense accounts have been

put in; he might be at New Orleans or other places during a portion of that time, but Mr. Griffin, I will say, was very prompt in keeping in touch with me on all his movements; I knew when he left for New Orleans.

RE-DIRECT EXAMINATION

of

JAMES M. SHAW.

As long as I have been connected with the Rio Bravo Company, which is at Sour Lake, the Spindletop Power Company has never furnished any power or air to them, because they had their own wind-jammer.

The Rio Bravo well No. 107 was not a gusher, as testified by Mr. Griffin; she was a shallow well, and a pumper; to my recollection it produced oil of a gravity to 21; oil in the whole field run from 21 to 23, except well 108, in which the first strata of oil struck was at 12; there was no desire at that time to get a lower gravity oil, as Mr. Griffin testified; we wanted oil that would not flash at 110, below 110; and if anything did flash below 110 we would not use it for fuel oil, and we never did get anything that would flash below 110; the oil that we were getting there would satisfy our requirements, every bit, and all we purchased there in the Sour Lake field would satisfy our requirements; I never saw any use there for a lower gravity oil, and never heard any express used of wanting lower gravity; if it had been of lower gravity we would have to heat

it. They are right now having a good deal of experience with that in California; it is a fine fuel oil.

[2214]

J. A. TAFF, a witness called and sworn on behalf of the defendant, testified as follows:

DIRECT EXAMINATION

I reside in Palo Alto, California, and am by profession a geologist. I have lived in California since 1909. I lived in Washington city for fifteen years prior to that time, where I held the position as geologist in the United States Geological Survey. During that time my attention was devoted to areal geological work, and economic resources connected therewith. My field of work fell chiefly in regions of stratified rocks, chiefly in the coal fields.

My training consisted of the usual preparatory courses in Arkansas and Texas universities. I graduated from the Texas University with the degree of Bachelor of Science, in 1904, and went into the United States Geological service soon after that. I was first employed as an assistant to Mr. Bailey Willis, and our field of work was in what is known as the Appalachian coal fields in the western part of Maryland and West Virginia—south.

I did work in Arkansas on my own account, in charge of an investigation of some coal territory south of Little Rock. I was connected with the State Geological Survey there from 1889 to 1894. I did general geological work, with particular reference to water. I was under Dr. J. C. Branner,

Stanford University. In 1897 I was at work in connection with coal and oil fields in Eastern Kentucky, West Virginia, and Northern Tennessee. Between 1897 and 1904, I was continuously engaged in the survey of coal and asphalt fields in the Indian Territory, now Oklahoma, and in 1905 I transferred my work to Utah and Colorado in the examination of coal fields, and was there during 1905 and 1906. The object of the work was the survey and classification of coal lands. I left the Government service in 1909. The last part of my work was devoted to the surveying of the oil fields in Oklahoma.

I was a member of the Oil Classification Board in the [2215] Geological Survey in Washington in 1909, with Ralph Arnold. I don't remember that Mr. Veatch was a member of the board. Mr. Veatch was a member of the Coal Land Classification board during a part of the time. I was a member of the Oil Classification Board a year or two,—I don't remember the exact time, because there was nothing done. I did not take part in the classification of the lands involved in this suit, and had only general information as to them, which I got from members who had worked in California, Ralph Arnold and others, and from certain publications that had been made in regard to the California fields.

Since I resigned from the Government service in 1909, I have been in the employ of the Southern Pacific as an assistant geologist and geographist in connection with oil chiefly; to a less extent with

metalliferous deposits. I have not been officially connected with the Kern River Oil Co. but a certain part of our work has been in the interests of the Kern Trading & Oil Co.; that is, we had to investigate the lands that were operated by the Kern Trading & Oil Co., as well as other lands in the oil fields, in our survey of the oil fields. I have done geological work in the Coalinga, McKittrick, Sunset and Midway fields, to a less extent in the Kern field. I began work in the McKittrick field in December, 1909. During 1909, and at other times since, I made particular investigations of the McKittrick field, and since 1909, more particularly in 1911, and to a certain extent in 1912, we made a careful survey of the Sunset and Midway, connected with and including the McKittrick field, a detailed geological survey, which was under my direction, and I spent part of the time in the field with the parties.

I have made a geological examination of the Elk Hills, in October and December, 1912, and January, 1913. I am fairly well familiar with the geological structure of the McKittrick-Midway region. I have made a study to determine for my own satisfaction [2216] whether or not the land embraced within the Elk Hills could be called oil lands, and concluded that it could not be considered profitable oil lands. The principal reasons for this conclusion are based upon the combined structure of the McKittrick and Elk Hills district; the character of the folds and their relative ages. All the geological evidence that

can be obtained in regard to the stratigraphic succession in the Elk Hills is obtained by a study of the same formations as the outcrop further west toward the foothills in the Temblor Range. The last formation which has to do with the geology of the district in respect to the occurrence of oil is what is known as the Vaqueros sand, which is considered to be of the Miocene age; overlying that is the Monterey shale, which is exposed in various parts of the Temblor Range, and along the foothills; this formation consists of shale with lenses of sand, particularly in the lower part, deeper down. Overlying the Monterey shale, there is a composite formation known as the McKittrick formation that, in this district, is recognized as consisting of two parts; the lower part is known as the Etchegoin, and the upper part as the Tulare. There is a formation below the Monterey commonly known as the Santa Margarita, but in places it is inseparable, practically, from the Monterey. The Etchegoin formation is recognized as being essentially a marine deposit, while the Tulare is recognized as being essentially a fresh water deposit. A change has taken place in the original position of the bedding planes of these successive formations. The Monterey formation has been quite extensively folded, tilted and faulted throughout its occurrence in the Temblor Range, and in the foothills, so far as exposures show. The general inclination is eastward with a downward dip toward the east, caused by the uplifting of the Temblor Range.

The Santa Margarita formation, being generally conformable with the Monterey, is likewise tilted, folded, and in many places faulted. The succeeding formation, Etchegoin, [2217] has been tilted to a less degree, and the Tulare to a still less degree than the others. It is recognized by a study of the West Side of the San Joaquin Valley and the eastern slope of the Temblor Range that there has been movement, uplifting and depressions in the Temblor Range from the early history of the geology as worked out in the Temblor Range. At the beginning of the deposition of the Monterey Vaqueros series, which are included together, there were lands along what is known as the Temblor Range, not a continuous range as at the present time, but they were elevated districts above the level of the sea. During the deposition of these beds, why, parts of the range were submerged,—to what extent of course cannot be told at the present time because of the uplifting and tilting that has occurred since. Then, following the Monterey series which were during an extensive subsidence, there was an uplifting of the Temblor Range to a greater extent than was recognized prior to the deposition of the Monterey series, so that the shore line at the beginning of the Etchegoin deposition, as far as we could determine, lay along what is now practically the eastern base of the Temblor Range. We recognize this by the inconformities and by the character of the deposits at the base of the Etchegoin formation. By “we” I mean

myself and others who have studied, and published it. There was a general agreement on that point amongst geologists who have carefully studied that territory.

The tilting of a formation that contains oil would naturally cause the oil to migrate upward if there are means of passage; and there would be a migration in a formation of this kind which is distinctly stratified, particularly along the bedding planes, and along the more porous layers of the formation. The presence of water would cause the oil to migrate upward rather than downward. The greatest migration would certainly be with the bedding planes.

The Elk Hills were certainly not in existence at the time [2218] when the uplifting of the Monterey formation by the Temblor Range occurred. The Elk Hills uplifted came into existence at a period of recent time, more recent in fact than any other uplift that is at present recognized in the McKittrick-Sunset district. The evidence as shown by the topography indicates that the Elk Hills were uplifted after the Buena Vista Hills. There certainly would be a migration of oil in the Etchegoin and Santa Margarita formations after the uplift of the Monterey formations. The oil would migrate laterally, that is with the bedding, very much more readily in a formation of the character of the Etchegoin than in that of the Monterey, because of the more porous character of the beds, the Etchegoin being composed in a large part of sands, particularly in

the region near the outcrops where we have studied it.

In the earlier stages there would be an island or series of islands, along the Temblor Range. There would be a lateral variation in the deposits of sand from the shore line or sources of the material into the interior, or in a direction towards the sea, or as, in this case, the inland sea of the San Joaquin Valley. The variation of the deposit would be a change in character from coarse to fine material near the shore; within reach of the waves and currents the material would be sorted, the finer material separated from the coarser material, and then carried out to deeper water where it would be deposited, so that near shore you would have the sands, and away from the shore you would have the silts and clays.

There is evidence, so far as can be worked out by an examination of the formations and near the outcrop, in favor of the fact that in the region of the Elk Hills and further out in the San Joaquin Valley there was, particularly during the Etchegoin and the earlier stages of the Tulare, continuous bodies of water, and that the coarser deposits would be thrown down near the shore line parallel with the Temblor Range, and that the finer sediments would be [2219] carried up further eastward and deposited in the region of the Elk Hills and other parts of the San Joaquin Valley.

In answer to the question as to where the oil would migrate during that time, if there was oil in

the bedding planes of those formations, I would say through the deposition of these formations to which I have referred. It is not presumed by any means that they contained oil. During that time, during the deposition of these formations, the Monterey, Santa Margarita beds were tilted and folded downward toward the center, eastward or toward the center of the San Joaquin Valley, and during this deposition there would naturally be a migration of the oil, if it occurred as it is presumed to have occurred, disseminated in the Monterey, Santa Margarita beds, and the evidence as shown along the McKittrick anticline is positive proof that the oil did migrate, and not only that, but is escaping along what is now the position of the McKittrick anticline.

We have as evidence of that fact that the lands along what is now the position of the McKittrick anticline was uplifted and folded and broken, and that the oil was escaping along these breaks. That continued from the beginning or very early in the deposition of the Etchegoin. The evidence of the early existence of this waste is shown in the character of the material that makes up the Etchegoin beds; that is, the lower part of the Etchegoin consists of the worn fragments, pebbles and the Monterey, which was broken up practically in place along this rift, and these pebbles show indications of having contained oil, that is, they bituminous pebbles of the Monterey; that shows that there were land conditions there at the time, and that they were

saturated with oil. That certainly indicates a waste as early as that period, and it has continued evidently from that time until the present, except it may have been locally submerged during the close, in certain parts, at least, during the close of the Tulare time, [2220] because the Tulare beds in places overlap the Etchegoin coming down directly upon the Monterey along in the McKittrick anticline.

That waste has evidently been very great. If the McKittrick anticline was folded and broken at that time, it has continued in the same condition until the present time, and at the present time, the principal seepages of tar, maltha and stiff petroleum is issuing from these fractures in the Monterey along the McKittrick incline, and there are extensive brea deposits along this rift that were produced in this way; that came from the Monterey and wells that are drilled off of the McKittrick anticline, off of the eastern edge north of the town of McKittrick, penetrate certain brea beds at various depths down to four or five hundred feet, showing that during the deposition of the Etchegoin at several stages, there were extensive brea deposits coming out from this fractured uplift along what is known as the McKittrick anticline, and there is no reason to believe other than that the waste has been going on continually practically from the earliest stages of the Etchegoin deposition.

The McKittrick anticline, as far as exposed, is an

unsymmetrical fold rather closely compressed and in places overturned towards the east, and in one locality particularly broken and thrust over, so that the Monterey rests now upon the top of the Etchegoin sands, the steeper dips are up on the east side and the shallower dips upon the west side; that continues southward until you find it passing beneath the overlapped edges of the later part of the Tulare.

There is a relation between the McKittrick anticline and the Buena Vista anticline. The Buena Vista anticline is in a sense a southerly continuation of the McKittrick anticline. In each one, there are subordinate folds, lapping folds, and the northerly folds, so far as can be recognized in the Buena Vista Hills, lap the side of the southerly folds of the McKittrick [2221] anticline.

The evidence is positively that the Elk Hills anticline is geologically very recent, while, as I have stated, the McKittrick anticline dates from prior to the Tulare time and Etchegoin time and the deposition of Etchegoin sands in which the oil is found in that general field.

I am familiar with the oil seepages, so-called oil seepages, along the Temblor Range. The principal seepages [2222] are along the McKittrick anticline; the seepages are quite numerous. They are near the north edge of the developed McKittrick anticline, southeastward, as far south as the edge of the township in which McKittrick is situated.

There are a few seepages in the neighborhood of Sunset, and there are some outcroppings—rather dry oil sands—in the region of Midway. The oil seepages that I observed in the locality of Midway are those lying just southwest of Fellows. I have not observed any others in that neighborhood. They are marked on the map in the neighborhood of the line between Sections 1 and 6, 32-22 and 32-23. The only oil seepages that I know of or have seen to the northwest of McKittrick toward the Canary Springs are those in the Temblor Range locally. These seepages do not belong to the same period.

The oil seepages in the vicinity of the Temblor Range are from the Vaqueros, just below the Monterey formation. The principal seepages along in the McKittrick anticline are from the Monterey; you might say, all of the seepages properly. The outcrop, oil sands, dry oil sands near Fellows appear to be in the Etchegoin, and those at Sunset, the principal seepages of the Sunset are from the Monterey, as I remember.

There are oil seepages at Coalinga on the same range of mountains, in the sands from the Vaqueros. Taking the line of seepages from those furthest north in the Coalinga District, down to Sunset, they cover nearly a hundred and fifty miles. There are some seepages north of Coalinga.

There are no seepages in the Elk Hills, to my knowledge. [2223] I have twice examined what has sometimes been called an oil seepage, and some-

times a blow-out, in Section 32, 30-24, in the testimony introduced in this case. During my first visit to it in 1912, there were outcroppings of stained sands on the sides of the gulch in the northwest quarter of that section; there had been a little prospecting; the sands at one place had been opened up to a depth of three or four feet, exposing the sands. In our opinion, it was not satisfactory in exposing the sands, so excavations were made after the first visit, so that when we visited it again, the whole portion of the sands that were impregnated had been cut through in a tunnel or excavation, so that the stained sands could be thoroughly inspected. The excavation was to a depth of about twenty feet in the hill and exposing the sands to the height of about nine feet, and in this cut the stained sands were passed through. The cut showed that the sands, as they occurred above the stained portion, were found to be the same at the furthest end of the cut as above in the exposure, so that we had an entire view of that portion of the sands that were supposed to have been impregnated by oil. The cut went clear through them, and at the depth of twenty feet, the stained sands had been entirely passed through and ordinary clean brown sands encountered.

On my first visit, I took samples before the excavation was made from the shallow pit, and on my last visit, [2224] I took samples near the entrance, and middle portion, and at the back of the cut, and

found that the sands most impregnated by this material were near the outcrop, within four, five or six feet of the surface, and that they varied slightly going back near the middle of the exposure, say ten or twelve feet in; the sands were very slightly impregnated. We found a thin zone around the edge next to the lean sands that was fairly well impregnated with this material.

The temperature of the sand when I was there was normal, and I believe it was considered that five or six feet in, it seemed to get a little warmer than at the exposed edges. I observed a slight variation in temperature myself.

The material, impregnating material in the sand, seemed to have collected at certain localities and segregated in balls or lumps, and sufficient so that it would cause the sand to adhere, and you could compress in the hand, and it would—and the sand would adhere because of the impregnating material. At other points, particularly along the edge furthest from the surface they seemed to have been segregated, thin layers of this material that impregnated the sand. It had a very disagreeable odor, essentially that you would get by stirring up bog. In fact, in the material where it seemed to be damp, why it was quite pronounced.

The first samples taken were tested by the use of chloroform by my assistant, who was with me, A. J. Heindl. We pulverized the material, the richer elements that we collected in the first instance, and

digested it in chloroform, and let it stand three or four days and we got no perceptible indication of color in the chloroform indicating [2225] the presence of bituminous matter. We took the same material and digested it in warm water and hot water, and we found a very large part of the material was dissolved, so that the residue was like coffee.

In addition, we tested the material by drying it, and applied fire and it burned like an ordinary piece of peet would burn, slowly, and we tried to detect the presence of petroleum or sulphur in the odor, and we failed to do that. I can't see any indication of petroleum in the alleged seepage. In my opinion, it is a finely divided or macerated bituminous or organic matter, that is, vegetable matter, residue from a completely decomposed vegetable matter. It is essentially the same as peet, and, basing my conclusions upon my examinations and tests, I would say that there is not the least evidence of petroleum or petroleum-gas in it.

I do not, in the main, agree with Mr. A. C. Veatch's testimony in relation to what he called a seepage or blow-out on section 32, 30-24, when he said—"I examined the seepage on two occasions and found a stained sand exposed at intervals for several hundred feet, on the west side of the gulch in which it is situated, and in one or two places on the east side. This sand contains some free sulphur. Tested with chloroform it gives no oil. The sand shows some carbon—particles of carbon—and it is

my conclusion that it represents an escape of gas from the oil-bearing zone, the gas carrying some oil with it; that this oil has been deposited in the sand together with sulphur coming from the gas, and that it has been fired—the gas has been lit—and that owing to incomplete combustion a little carbon has [2226] been left in some of the sand,—which makes it probable to my mind that any one or more persons in the past could have tested that and gotten positive results of oil, if the oil had not burned out. It would probably be, also, a volatile oil that would evaporate. If there were other earth movements it would be possible, I think, at some future time, to get a positive test of oil.”

I did not find any indications of free sulphur, and the sand did not show pure carbon. It contains carbonaceous matter, partially decomposed, vegetable matter. I do not agree with his conclusion that “it represents an escape of gas from the oil-bearing zone.” I do not know of any oil-bearing zone there, and there is no evidence in the least of any oil having been carried into that deposit, and there is no evidence that the material has been fired. Combustion sufficient to consume quantities of gas and oil issuing enough to be lit, would evidently discolor those sands. You would have indications of oxidation, and that is not present. Particles of material found there will burn when they are dried and put into the fire, and under no other conditions. If there had been combustion of gas there, it should have

burned the particles, and there is no evidence that such a thing took place.

In my opinion, a chloroform test made in 1899 or 1900, would not have shown the presence of oil there, as has been testified to by Mr. Youle.

I made other comparative tests to determine just what materials will show the chloroform reaction, indicating the presence of bituminous material or oil. I selected [2227] samples of bituminous coal, pulverized those, and subjected them to the same tests we did these bituminous sands, and we had indications of bitumen in the chloroform test greater than we obtained from the material taken from these samples. These deposits are not "bituminous sands." The term "carbonaceous" would be applicable, or you, might use the term "peaty sands." Tests made with the ordinary bituminous coal indicated the presence of bituminous matter; that is, we got a discoloration of the chloroform similar to what you would get by using an ordinary bituminous sand,—an oil sand. The chloroform test is the recognized test employed in determining whether oil is present in any sand.

I also tested oil sand obtained from surface outcroppings in a similar way. They showed a very pronounced indication of oil. That is, the chloroform was highly discolored, showing a solution of the bituminous material in the sand.

If there had been any oil present in the alleged seepage in section 32 within a hundred years, it cer-

tainly would have revealed itself by the use of the chloroform test, as I made it. I believe that an oil sand that shows any indication of oil to the eye, that you can perceive—you know it is oil-sand—will show positive chloroform tests.

There was no indication of any earth movement in that place except simple low folding. The rocks were slightly tilted. To sum it all up, that is not an oil seepage, and I am sure from my examinations that it is not a petroleum gas blow-out, and is not of the least signi- [2228] ficance in determining the oil character of those lands.

I made a careful examination of the localities mentioned in Section 14, 30-22, and also further west along the same drainage channel, to determine the nature of the bitumenous deposits, as to whether they were or were not oil seepages. I found at numerous localities along the canyon near the railroad, from the level of the present streamway upward for from fifty to twenty feet, occurrences of dry brea mixed in fragments with the recent stream deposits. The material didn't impregnate the sands, by any means, in any way, but occurred in separate particles with the sand and shale fragments brought down the gulch, showing conclusively that they were transported recently. Not only that, but similar deposits were found along the stream upward to the present brea deposition, to where they occur in the anticline south of the town of McKittrick.

There are not oil seepages in the McKittrick anti-

cline south of the town of McKittrick. They are simply transported fragmental brea mixed with the sands brought down the stream and re-deposited along the banks of the present stream-way, simply float, and has no relation to any anticline in the Elk Hills, and is no evidence at all of the existence of oil in the Elk Hills. There is not any seepage or asphaltum indication anywhere in the Elk Hills that I know of.

There is a certain relation between the occurrence of coal and the occurrence of oil. Coal is a sedimentary or stratified deposit, and it has remained in the position where it was laid down, with the exception of local movements of the earth's crust, until the present time.

Oil, according to the accepted knowledge concerning [2229] its occurrence and its origin, originated as a disseminated substance in the rocks, where the organic material from which it had its source was laid down. Since that time it has been in a continual process, progress, of migration, so that with very, very few exceptions it is not found at the present time, at least in commercial quantities, where it originated, as in the case of coal.

Coal is produced from the accumulation of organic vegetable matter, deposited, as a rule, where it grew, in low-lying, flat, swampy land,—in some cases contiguous to extensive waters and at other places evidently considerably removed from extensive bodies of water; but, with rare exceptions, the

land conditions were stable for a considerable period of time and the surface was essentially flat, so that, by an accumulation which is recognized to be very slow, extensive deposits of vegetable matter would be accumulated, and finally submerged and entombed by later sediments, and finally reached the state in which we find it at the present time.

Deposits of sand, formations of sand, are recognized as being local in character, as occurring only in the presence of shifting waters, of currents that carry the sands along, or in currents and in the presence of waves along and contiguous to the shore-lines of seas and lakes; and for that reason they are more local in character and more variable in thicknesses than the accumulations of coal, as a rule; and there are many other formations, such as limestone, and more local in character and limited in extent, as a rule, than shale deposits, which are laid down in the presence of [2230] extensive bodies of water.

Oil is almost invariably produced from some other formation than that in which it originated. It occurs, as a rule, in formations of coarse sediments; as a rule in sands. Oil in commercial quantity is obtained in some parts of the country from limestone, porous limestone; and, to a certain extent, oil is recovered from shale deposits in which the shale is more or less fractured, where the oil occurs in open spaces—fissures and fractures of the shale. But such occurrences are rare.

The rule applied in determining the presence or

absence of oil in commercial quantities are only to a very limited extent applicable in the determination of the presence or absence of coal in commercial quantities.

In making your geological examinations, you determine the successions of the beds and the extent of those beds in which the oil is likely to occur, in the same way, or a similar way, that you examine lands in which coal occurs, to determine the extent of the coal bed. But, in the case of coal, the coal, of course, is coextensive with its bed, where it was originally deposited. We use the same methods, to a certain extent, to locate the sands in which you presume your oil occurs, but you recognize the fact that the conditions are different in the case of the occurrence of the oil from that of the coal.

The mere existence of sand does not by any means indicate that the sand contains oil. Deposits of sand are not as persistent in their areas as the deposits of coal as a rule.

At the alleged seepage in section 32, the organic [2231] matter contains a large percentage of moisture. When put in a test tube and applied to the flame, it can be seen that the moisture is quickly removed. The test with hot water indicates that the organic matter is very finely divided, and to a large extent decomposed. The increasing temperature as you go into the deposit, indicates a slight oxidation. It was found that the increase in tem-

perature occurred where the material was wettest, contained the most moisture.

I do not agree with Mr. Veatch's statement that—"Where minerals occur in stratified rock, it is frequently possible to determine with exactness their extent and value and other factors important in their appraisalment and development. That is the method which has been employed for many years by practical men in such subjects. Stratified rocks are laid down in relatively regular layers, for the most part, beneath the sea; "because it is not a fact that where minerals occur in stratified rock it is possible to determine with exactness their extent. Certain minerals, and minerals for the most part that occur in stratified rocks, are not determined with exactness or with ease as to their position, because they are as a rule determinated and they occur and are governed by conditions that came about after the rocks were deposited; whereas, if you refer to the deposits that are laid down as stratified rocks, and have not changed since they were laid down, as coal, for instance, why, you can determine its extent, and so forth, with a certain degree of accuracy by your observations.

I do not, in the main, agree with Mr. Veatch's statement when, in speaking of the analogy between oil and [2232] coal deposits, or other stratified beds, said—"They both occur in stratified deposits and are subject to much the same laws; and you can—In the case of a coal deposit, where the erosion

has entirely removed the strata around a given area, you have that area rising as a hill above the surrounding region. If, in such case, you find coal outcropping on one side of the hill and follow that coal bed around the hill, as you can, by natural exposures, and find it goes entirely around the hill, you know absolutely that the coal underlies the hill, and are justified in buying that land as coal land in the absence of any development. In a similar way, if you find a coal bed exposed on the side of a valley, dipping beneath that valley, and follow the bed around the valley, you know that the valley is underlaid with coal, and by the change of slope of the beds you can calculate the depth of that coal bed in that area which is underlaid with coal. In the case of oil or water you can follow the sand bed or other porous bed suitable for containing them, in exactly the same way as you do the coal bed. You can determine the existence of that porous strata in the same way you can determine the existence of the layer of coal, and in a similar way you can calculate the thickness of the depth of that porous bed under different portions of the territory. You follow the same method. The presence of oil or water in the porous bed can be indicated either by springs along the outcrop, in the case of water, or seepages in the case of oil, or failing those, their presence may be demonstrated by a well or a group of wells. Such a well or group of wells, taken in connection, or such seepages [2233] taken in connection, with the de-

terminal persistence of these beds and the geological structure warrant the development of territory in which you have not drilled. It shows the presence of the substances desired under the lands." I differ from him when he refers to coal in stratified deposits. The fact is, coal is a stratified deposit.

His criteria for determining the character and extent of the coal are correct. I would make exceptions to the fact that he states indefinitely the extent of the area of coal in this determination. If you follow the outcrop of a coal bed around a hill, see it dipping into the hill, if your area is of limited extent and you know beforehand that the coal bed that you are dealing with is a very extensive one and does not vary in character, is not broken, then you can determine the character of the coal within that land. The same way in the case where the coal dips beneath the valley; if your valley is of very limited extent and you can get the coal on both sides dipping into the valley and you determine beforehand the character of your coal, that it is extensive, does not vary—that is, does not vary beyond certain reasonable limits of workable character—then you can determine the extent of the coal, to a reasonable degree, under cover. But the conditions are entirely different with oil. Oil sands that crop out around a hill, for instance, in the way he designates the coal, would not be oil-sand that would contain oil in commercial quantity. An oil-sand that crops out around a valley in that way

would not be— In other words, in the first place, you would not be able to determine the extent [2234] of your original bed, your sand-bed or any other bed in which your oil occurred, in the manner that you would your coal. As is generally recognized, oil occurs in upward folded rocks. In such cases you do not find your sand in which your oil occurs cropping out around your anticline; you have to proceed to some other locality to get the character of your sand, some other anticline or monocline or other locality outside of the particular region you are considering. Beside that, you have no assurance of the extent of the oil in the sand after you have determined the extent of the sand. If the area of the anticline or monocline contains water, you have conditions to deal with that you have not where you are dealing with coal. If it contains no water you have conditions which deviate from your condition with the coal.

To explain more fully in that connection I will say that in case you have no water, in case the sand that is supposed to carry the oil shows no water, your oil would be in a different position and under different conditions to what it would be if it contained water; that is, if you have an anticline and no water is present, your oil would not be in the position you would expect it, that is, in the upward portion of the anticline.

The presence or absence of water would have no effect on coal in the least.

It is not possible, as a rule, to carry the determination of the persistence of sand capable of holding oil as far as you can carry the determination of the persistence of coal. [2235]

The value of the result of geological observations depends upon the accuracy of the observations, as Mr. Veatch states in his testimony, and also on the extent and adequacy of the observations, the thoroughness with which the geologist has gone into the investigation in the field with which he is dealing.

Recurring to the illustrations I have given of a coal outcrop around the valley, I will say that further geological determinations are necessary. You have to determine the character of the coal, the thickness of the coal beds, and you have to determine, as I said before, that the particular coal beds with which you are dealing are continuous over extensive areas. That can be determined by investigation on the outcrop of the beds and by prospecting, by drilling. In fact, coal operators purchasing coal lands, even though the beds crop out around the area with which they are dealing, insist, if they understand their business, that the land be drilled in order to determine the continuation of the coal beds.

That requirement is a reasonable one from a geological standpoint because, before they spend their money to pay the coal prices, they feel that they should have assurance that that coal bed is reasonably continuous and good enough to work. In most

cases, the presence of an outcrop alone is not sufficient to indicate the continuity of the coal, except locally, small areas, near the outcrops.

A comparison may be made between the determination of whether water will occur in stratified rocks and oil. As to the difference in the two determinations, I will say that water [2236] occurs in a similar way to that of oil, that is, it permeates, particularly, porous beds. Oil occurs in a similar manner, except that oil compared to water is extremely lower. In regions where rainfall is considerable, water can be depended on to be co-existent with the porous beds; and, for that reason, in determining artesian water areas, all that is necessary—the principal things that are necessary, rather, are to determine the position of your sands that contain the water and then the structural conditions under which those sands occur.

In the case of oil, it is by no means possible to determine in that way the source of the supply and the quantity of the supply that might go into the sands. It occurs under different conditions, and is governed by different conditions in the rocks.

I do not agree with Mr. Veatch's statement that the oil value of lands can be demonstrated in other ways except by the drill. The occurrence of oil and that of coal is not the same in every way, as Mr. Veatch has stated it.

I would not agree with the conclusion reached by Mr. Veatch that the Elk Hills were oil lands on the

evidence stated by him when he said—"In a general way, to outline the proposition, there are a series of porous beds and associated clays which are well designed, on the one hand to afford a reservoir for the oil, and on the other hand to prevent undue leakage, which may be traced for many miles along the flank of the Temblor Range, the east flank, in this case, being the important one for this question. In that area there are seepages which have been there from the be-[2237] ginning, which extend for a distance of over fifteen miles, showing the persistence of the oil saturation in these porous layers,"—because he has explained the structural character of the Elk Hills. He has enumerated a great many seepages, without reference to where those seepages occur, as to what formation they occur in, as to whether the formations in which they occur occurred in the Elk Hills or may be found within any reasonable depth in the Elk Hills. He has not investigated, evidently, the character of the McKittrick anticline that lies west of the Elk Hills. He should have determined the relative ages of the folds that would have a bearing on the accumulation of oil in the Elk Hills.

You could not at all make use of the entire outcropping for the determination of the character of that land. For the same reason, such determination would be inadequate, as is shown in the case of the determination of the oil character of the Elk Hills. The coal beds, the character of the coal land,

would be determined by the occurrence of the known coal beds that passed beneath that land within reasonable depths for mining.

In the case of the coal bed referred to in the question, or the determination of the character of coal lands by the outcrop of coal beds, it is a recognized fact that though there may be numerous outcroppings of coal around about the coal lands, if they are not known to be continuous and are not known to pass beneath those lands within reach of mining, they are not applicable in the classification of the lands. If the beds belong to different periods of [2238] geologic time they cannot be continuous.

I do not agree with Mr. Veatch's statement when he said that the beds "are exposed on the east flank of the Temblor Range and may be followed there for a good many miles and the porous character readily determined. Now, taking this distance of seepages of thirty miles, and which is, I may say greater than that, but that is an area that is adjacent to this that is easily shown, it shows impregnation of oil strata extending at least fifteen miles from a given center. Applying this distance of fifteen miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills, and the only question that could remain regarding the oil value of the territory outlined in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills, and the valley lying between the Buena Vista Hills and

the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geological determinations",—because there is not evidence in the field to determine by an examination of the ground that the single formation of sand that the oil is presumed to occur in is continuous or extends even to the Elk Hills. In the second place, the seepages that he refers to and that are the bases of the determination, generally occur in the sand that is presumed to extend under the Elk Hills, with very few exceptions; that is, the seepages of any importance are seepages that occur in the Monterey formation and are not even presumed to be oil-bearing, in commercial quantity, in the Elk Hills, or any- [2239] where else in this county, in this part of the region. And some of the seepages occur even below the Monterey; and even though they should extend—even though the formation in which they occur should extend under the Elk Hills, they would not be reached by any possible means by drilling.

I don't know of such a test having been applied in California in either oil or coal lands. I have said that the seepages and sand croppings occur along the West Side somewhere upwards of a hundred and fifty miles, and I cannot by any means say that there is an oil zone extending seventy-five miles to the eastward of the Temblor Range, that full distance.

It was not possible for a geologist to go into the

Elk Hills in 1912, and absolutely eliminate what occurred there since 1904, for the purpose of making his conclusions until he make a thorough investigation of the field.

Q. By Mr. Lewers: On page 1355 this question was asked of Mr. Veatch: "Q.—What would you say of the evidence from the geologic structure and seepages to which you have referred, along the base of the Temblor Range, as in anywise tending to form an opinion in your mind as to the oil value of the land in the Elk Hills, and particularly in the lands in suit A.—Well, as explained, the determination of the oil value of the lands in the Elk Hills is predicated on the seepages which occur along the flank of the range. They prove the extent of the oil-impregnated zone and in that way demonstrate the oil value of the Elk Hills." What do you say as to that conclusion

A. I would say that it is not correct.

Q. Well, why do you differ with him in that statement?

A. Because he does not, and the fact of the case is that the oil seepages are not, for the most part, in the formations that he assumes the oil to be in the Elk Hills.

Q. Well, can you—is it possible, as geologic matter in [2240] connection with the determination of the presence or absence of oil, to say, from the existence of a line of seepages, that a certain terri-

tory at right-angles to those seepages a number of miles away is valuable for oil?

A. He cannot say it is valuable for oil.

Q. On page 1368, beginning at the bottom of the page, this question was asked: "Q.—You have heard it testified to in this case that one E. T. Dumble, alleged to be a geologist in the employ of the railroad company defendant in this suit, and the late Josiah Owen, also alleged to be, by testimony introduced here, a geologist in the employ of the defendant railroad company, during times prior to December, 1904, were quite frequently in the vicinity of McKittrick, formerly called Asphalto, and one, at least, of these gentlemen having made trips into the Elk Hills, would you say, or do you believe, assuming these gentlemen to be competent oil geologists, that at that time, prior to December, 1904, at that stage of development, they could have helped knowing the oil character of the lands in suit?

A.—The geologic structure of the Elk Hills is so very evident—the hill, as explained before, is a structural hill—that anyone a geologist standing at Asphalto would naturally and at once suspect the character of the field. If that suspicion were verified by examination, as stated in your question, if the geologist had actually been on the ground, he could not have helped but know absolutely the anticlinal nature of the hill and from the development in McKittrick must certainly have regarded it as an oil production." Now, if we give to the expression

“oil proposition” the meaning of its having a value for oil actually in it, would you agree with his statement?

A. I would not.

Q. Why not? What is the matter with his reasoning?

A. Because he has not laid the proper foundation here for the determination of the character, the oil or non-oil character, of [2241] the Elk Hills to which he refers. A man standing at McKittrick, after going over the Elk Hills, if he is a geologist, would know the character of the structure of the Elk Hills. Looking at the development at that time, or even at the present time, would not by any means enable him to conclude the oil or non-oil character of the Elk Hills. The fact of the case is that at the present time, along the McKittrick anticline opposite the Elk Hills, all attempts at drilling have failed.

Q. By Mr. Mills: What is that?

A. I say, all attempts at drilling to obtain commercial oil there have failed.

Q. Whereabouts?

A. South of McKittrick and opposite the Elk Hills in the vicinity of the McKittrick anticline.

Q. All attempts have failed?

A. Yes. The wells are dismantled, and no production.

Q. I just wanted to understand what you said, that was all.

A. Yes. Then, if he had gone into the Elk Hills, —I mean to the McKittrick anticline, and had made a proper study of the geology, he would conclude, even without those wells that have failed to produce, that the conditions for the occurrence of oil in the Elk Hills would be extremely poor; in other words, he would have reason to believe that oil, if it occurred there, would be relatively of very small quantity.

Q. By Mr. Lewers: Now, would it be necessary for a geologist, to reach an intelligent conclusion, to take into consideration the stratigraphic history of that territory, the successive uplifting and folding, and so forth? Would that be necessary?

A. It would, and his conclusion would not be a proper conclusion until he had made such investigation.

Mr. Mills: Well, I don't quite see the relevancy of the question and answer, Mr. Lewers, because he stated he had made that [2242] investigation, in his evidence.

Mr. Lewers: You have made that statement twice. I wish you would point out where he made any such investigation. He did not do anything of the kind.

Mr. Mills: Well, the record shows where he said it.

Mr. Lewers: He absolutely refused to do so.

Mr. Mills: You quote isolated excerpts from the

testimony and attempt to make it appear that Mr. Veatch based his entire conclusion upon one fact.

Q. Mr. Lewers: Mr. Taff, is petroleum, in your opinion, organic or inorganic in its origin?

A. Organic.

Q. Is it a mineral?

A. I don't think it is.

Q. How would you define "mineral"?

A. "Mineral" as defined by mineralogists, from whom I get my definition, is a constituent part of the earth's surface that has a definite chemical composition, and—

Q. What is its origin?

A. Inorganic.

Q. Does petroleum have a definite chemical composition?

A. It does not.

Q. What is the most recent authority that you have examined in connection with this, Mr. Taff?

A. The most recent is that of Professor Rogers, of Stanford University, professor of minerology at Stanford.

Q. And does his work classify "petroleum" as a mineral or non-mineral?

Mr. Mills: I object to that. That is manifestly secondary evidence.

A. My memory is that he classifies it as a non-mineral.

Q. By Mr. Lewers: On page 1371, Mr. Veatch, in answer to a [2243] question by Mr. Mills, stated

the following: "In attempting to give a scientific meaning to the word 'mineral', some scientists have defined a mineral as any substance of inorganic origin of definite chemical composition occurring naturally within the earth. If this definition is followed out strictly, it would exclude everything in which organic matter has been a factor in its formation. Many deposits of iron ore will be excluded." Do you agree with that statement?

A. I do not.

Q. Why not?

A. It is recognized that many of the iron ore deposits are connected with organic remains. Those organic remains, since they were laid down in the rocks in which they occur, were non-mineral—I mean were mineral, inorganic, that is, they are the skeletons of animals. In the same way, in the oil fields here in the Monterey shales the skeletons of the foraminifera and the diatoms are inorganic; they are mineral. The organic part of the animal has departed to form the oil; before the iron ores were accumulated, the organic part of the animal had disappeared, the inorganic remains. The fact that the iron ore has any connection with the organic remains does not connect it in any way with organic substance, that is, as an organic deposit; and the iron ore has a definite chemical composition, though the iron itself may occupy the skeleton of an animal.

Whereupon the further taking of testimony here-

in was adjourned until Tuesday, March 11, 1913, at 10 o'clock A. M., at the same place.

On Tuesday, March 11, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment. Present: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of defendants. [2244]

J. A. TAFF, recalled. Direct Examination resumed.

By Mr. Lewers:

Q. Mr. Taff, from the examination you made of that alleged seepage, in Section 32, Township 30-24, and of the excavation which you say was made in it, what conclusion did you come to as to the extent or volume of that deposit?

A. My conclusion was that the volume of the deposit was a small area and local in extent, for the reason that it was traceable along the outcrop but a short distance at this locality and but a short distance at other localities in the immediate vicinity, and about the same position in the rocks, and from the fact that in excavating it we went through it. In other words, it is limited laterally along the outcrop locally, and as shown by the excavation it does not extend to any considerable depth from the outcrop inward.

Q. Well, how about vertically?

A. At the base, is underlain by impervious clays, which were dug down through a foot or so, expos-

ing thin sands below, and other clays that didn't contain any impregnation with carbonaceous matter; and vertically it extends up in the sand, but not through this particular bed of sand that contains it.

Q. And where was the greatest impregnation of this organic matter?

A. The greatest impregnation was nearest the surface; that is, within four to six feet.

Q. Is there any evidence of connection with any subterranean source of supply?

A. There is no evidence. The rocks were not broken, as far as could be determined from the outcrops and from the exposures made.

Q. Yesterday, in answer to one of my questions, you spoke of certain brea deposits in the vicinity of McKittrick, and, as I recollect it, stated that those were of Monterey origin. What do [2245] you include in the term "Monterey" in that connection at that place?

A. Along the McKittrick anticline, where the shales below the Etchegoin and Tulare are exposed, they are very much broken and folded and disturbed, and it has been recognized as far as could be determined from the character of the shales, in which no fossils have been found at this particular locality—

Mr. Mills: I object to your constant use of the term, "It has been recognized." You are asked for your personal opinion, Mr. Taff, and there is no way for me to make the objection except by interrupting

you. If you insist on using that term I want to know just what you mean.

Q. By Mr. Lewers: You may proceed, Mr. Taff, and explain that later. Finish your answer.

A. We have shales there that resemble very closely the Monterey shales where we know it to be in large extent and volume, and we have also the shales that lie at the top of the Monterey, which are reckoned as the Santa Margarita, and at this locality the shales are so nearly alike that separation cannot be made. And it might be stated, in that connection, that the reference might be made as "Monterey-Santa Margarita", in preference to "Monterey" alone.

Q. Now, in connection with your work in the government service, did you prepare any publication of any kind that was issued as an official document by the government in connection with classification of coal or other lands?

A. I did.

Q. What other sorts of deposits did you have occasion to examine?—I mean the deposits that were found in connection with stratified rocks—besides coal?

Mr. Mills:—That is objected to as immaterial to any of the issues of this case. [2246]

A. I had occasion to examine, survey and classify lands that contained extensive bituminous deposits, residues from oil pools or oil seepages, particularly in the southern part of Oklahoma, princi-

pally at what was at that time Southern Indiana Territory.

Q. By Mr. Lewers:—I show you a document marked “Department of the Interior Circular 6, 1904”, and ask you by whom the material in that document was prepared.

A. It was prepared by myself.

Mr. Lewers: We offer this in evidence as Exhibit No. 113.

Mr. Mills: May I ask what the purpose of this offer is?

Mr. Lewers: The purpose of the offer is to show the view then recognized as the distinction between the manner of occurrence of coal and that of oil.

Mr. Mills: By this witness?

Mr. Lewers: Yes.

Mr. Mills: It seems, then, clearly to be a self-serving declaration, and is manifestly objectionable. The witness is on the stand and able to testify. Moreover, no proper foundation has been laid for the introduction of this paper, uncertified in any way. It is further objectionable because it concerns land remote some two or three thousand miles from the lands in issue; has no bearing on the questions involved here.

Mr. Lewers: We desire to read into the record from Exhibit No. 113 the introductory paragraph, as follows: “The conditions governing the location of asphalt lands are different from those relating to

coal. Coal is a stratified deposit formed originally with the deposition of the rocks."

Mr. Mills: Just one other objection that I want to interpose to this excerpt that you are reading now. It appears that the matter that you are now reading into the record relates to asphalt lands and not to petroleum lands.

Mr. Lewers. "It is simply a rock bed, and usually runs paral- [2247] lel with and is as extensive as ordinary rock beds with which it is deposited. Not so with bitumen or asphalt deposits. They permeate irregularly a mass or beds of stratified and porous rock or fill fissures where the stratified rocks have been cleft. There is no means to determine how far the rock conditions which admit the presence of the bitumen or asphalt may continue beneath the surface or how far such deposits may extend if the conditions be favorable, except by the use of the prospecting drill or by excavation. Fissures in the rocks which contain the species of hard asphaltum are irregular both in the bearing of their outcrop and in their direction and width downward. In any case it is not reliable to select asphalt lands for sale which extend beyond deposits actually proved, either by natural or artificial exposure, to be of commercial value. Neither would it be just to the purchaser of such lands."

The circular last referred to and offered in evidence is marked "Defendants' Exhibit 113-L.L."

Q. By Mr. Lewers: In your work for the gov-

ernment of classifying coal lands, Mr. Taff, how far in a general way did you carry your determination from the outcrop that was revealed either on the surface or by workings? If you can answer the question in that form.

A. That depended upon circumstances. In the first place, upon the character, quality and thickness of the coal beds, their structure, that is how steeply they were tilted, and the distance from the outcrop that such coals could be reasonably mined. and upon the extent of those marketable coal beds as shown from the outcrops and from artificial exposures, and the prospects or drill holes or mine workings. In no case, however, though, have the coal beds or group of beds associated together extended any distance along the outcrop; in no case were the lands suitable to be reliably classified more than a few miles from the outcrop. Unless, [2248] of course, the coal beds cropped out in circular form so that you had the coal coming to the surface on both sides of a certain district, and where the coal on both sides was found to be continuous either from outcrops or prospects or mine workings. If, on the other hand, the coal beds were found to be local in their natural extent, interfered with originally by islands or elevated lands within the coal swamp in which it was formed, or by erosion after the coal had been deposited and locally uplifted as sometimes is found to be the case, and the coal removed in part, if such conditions are found it would

not be reliable to classify the coal lands except in the vicinity of the localities where they are found to be continuous.

Q. Now you say that that classification would not extend more than a few miles in any case. What do you mean by "a few miles", if it is possible to give an answer to that?

A. Three or four, or in no case any more than six, as I remember, was the practice and what was considered to be by myself and associates at the time the lands were being surveyed and classified from 1904 when the first lands to my knowledge were classified by the government service up to 1909, when I left the service.

Q. If you had exposed along the Temblor Range outcroppings of coal at the points where the outcroppings of brea or of dried oil sand now appear substantially at the same intervals and substantially under the same conditions as the geologic age of the outcropping, and no outcropping of coal at all in the Elk Hills or beyond the Elk Hills, would you in following the methods of classification that were employed by the United States Geological Survey at the time you were connected with it, classify the land in the Elk Hills as coal land?

Mr. Mills: Just a moment. Read that speech.

(The last question is read by the reporter.)

Mr. Mills: Well, that is objected to, because it takes no ac- [2249] count of dips, and your question further leaves out the vast number of oil seep-

ages which have been testified to for many miles and extending into the Buena Vista Hills, and evidences of outcroppings in the Elk Hills; for the further reason that it is wholly immaterial.

Q. By Mr. Lewers: You may answer.

A. I do not.

Q. Why not?

A. For the reason that in the first place—

Mr. Mills: The same objection to the last question; the same objection.

A. (Continuing) those outcroppings occur at various stratigraphic positions, one below or above the other, and that those outcrops or seepages are comparatively local in many places, a number of miles between outcrops or alleged seepages. You would not have evidence of any continuous deposit of coal; you would have a number of coal horizons stratigraphically in the column through a thickness of several thousand feet. Each particular coal bed as it cropped out where the oil-sands cropped out or seepages are would have to be dealt with singly and the coal pertaining to that bed would control the classification of that coal only in the immediate vicinity of such exposures.

Q. By Mr. Lewers: Now, if you varied the assumption contained in my question by adding thereto the further assumption that wells as shown on the Barlow & Hill map in evidence for the year 1904 at McKittrick, and down through the Midway, revealed coal in a merchantable quantity, what

would your conclusion be from that additional evidence classifying the land in the Elk Hills at one end twelve or more miles from this line of wells and at the other end over five miles from this line of wells?

Mr. Mills: That is objected to for the same reason.

A. I would not classify coal lands situated as the Elk Hills are [2250] as coal lands from such evidence, for the reason, first, that the wells along the McKittrick anticline opposite the Elk Hills where it would be necessary for you to begin your operations on the coal to recover coal from those lands, such development at the time as shown by the Barlow-Hill map would reveal non-workable coal as it does reveal non-profitable oil.

Mr. Mills: That last statement is objectionable, and I move that it be stricken from the record; based on no evidence whatever in this case.

A. (Continuing) And for the second reason that there is no means to determine, and there are good reasons for believing that such coal in the Elk Hills, situated in the position as presumed oil-sands might be, would be beyond the reach of workable mining.

Q. By Mr. Lewers: Well, assuming that you could mine coal at the same depth that you could mine oil, would you change your conclusion, in the Elk Hills?

A. I would not.

Mr. Mills: Just a minute. Let me ask counsel if

he sees an analogy between the mining of coal and the mining of oil.

Mr. Lewers: No, I don't.

Mr. Mills: The only analogy that exists is in the continuity and persistency of the stratified beds.

Mr. Lewers: We have shown that that analogy does not exist.

Mr. Mills: We have tried to.

Q. By Mr. Lewers: Mr. Taff, are you familiar with what drillers term boulders in their drilling operations?

A. I am, fairly well.

Q. What are they?

A. They are various things; they may be boulders proper; but as a rule in rotary drilling, particularly in the presence of stiff clays, there is a tendency of the rotary bit in its circular movement to collect and compact balls of mud into hard stony like masses [2251] that are brought up as such balls and fragments and are often, and as a rule I believe characterized by drillers as boulders. Often it is reported clays and boulders, gumbo and boulders. Now, it is recognized on the outcrop boulders do not usually occur in gumboes and clays.

Q. By Mr. Lewers: Then those are not real boulders in the common or popular sense?

A. No.

Mr. Lewers: You may take the witness.

CROSS-EXAMINATION
OF J. A. TAFF

By Mr. Mills:

Q. You say you received some education in the University of Arkansas?

A. Yes sir.

Q. How long were you in the University of Arkansas?

A. I was in the University of Arkansas about eight years.

Q. That has a preparatory department, has it?

A. It had then, but it hasn't now.

Q. So that children might enter there at an immature age, and after spending their early life in and about the university, might finally graduate from that institution in eighteen years, about?

A. No.

Q. With the degree such as the Arkansas University would give?

A. No; at that time the Arkansas University contained what they called a preparatory department, which was essentially a high school; students of high school grade were received and spent those years, some of them, in preparatory work, at the end of which they entered the collegiate department.

Q. And those so-called high school students entered into such [2252] common school studies as geography and arithmetic, and the usual branches of common school work?

A. Yes, high school work.

Q. Some grammar and the ordinary branches that we now find in the primary grades of any state east of the Mississippi River?

A. Not the primary grades.

Q. Well, what is called the primary; the primary is up to the Eighth grade?

A. No.

Q. Well, it is generally assumed to be, what we call the primary?

A. No, high school grades.

Q. Well, do you know of any high school east of the Mississippi River that teaches arithmetic?

A. I am not familiar with it now.

Q. In fact, before the entrance into a high school in any of the up to date schools east of the Mississippi River, arithmetic is a subject that must have been completed; isn't that true?

A. I am not familiar with that, no.

Q. The first mathematical study which a student gets in such a high school is algebra and plane geometry; isn't that correct, sir?

A. I don't know. It may be in some states, and it might not be in others.

Q. And geology and analogous subjects are not taught in the high school, except in the form of physiography?

A. No, I think that advanced—

Q. Now, you never—

Mr. Lewers—Wait a minute. Let him finish the answer.

A. I think that advanced geography in connection with the physiography is taught in high schools in most of the states.

Q. By Mr. Mills—Where is it taught, what high schools? [2253]

A. I am not familiar with it; that is my opinion.

Q. Did you receive any degree from the Arkansas University?

A. I did not.

Q. How did you come to leave the Arkansas University?

A. Well, there were two reasons; the first was that I had an offer for work in which I was particularly interested and which formed the major part, one of the major parts of my college work; another was that, like some other young men, I was obliged to obtain my own means for education, and I accepted an offer and left the university at about the close of my junior year.

Q. About the close of your junior year?

A. Yes sir.

Q. How many years are there in the university? There are the freshman, sophomore, junior and senior years?

A. Yes.

Q. Well, then the early part of your life at the Arkansas institution was in the primary or school grade?

A. Yes.

Q. Now, you say you went from there to the Texas university?

A. Yes sir.

Q. What does that institution offer in the way of

a degree? Does it offer a Bachelor of Science degree?

A. It does.

Q. How long did you spend in the Texas university?

A. Two years.

Q. Then you didn't get full credit, did you, from the time you left the Arkansas university until you entered the Texas university?

A. No.

Q. You say you got a degree of Bachelor of Science?

A. Yes.

Q. When did you graduate from the Texas university? [2254]

A. In 1894.

Q. Now, did you do any work directly or remotely connected with geology before you went to Texas?

A. Yes.

Q. Was that the work you referred to which you did under the direction of Doctor J. C. Branner, who was a witness in this case for the government?

A. Yes sir.

Q. What position did Doctor Branner occupy in the state of Arkansas at the time you were employed as an assistant?

A. He was director of the State Geological Survey.

Q. Was Doctor Branner at that time regarded as a great geologist?

A. No.

Q. He was not?

A. No.

Q. You didn't so regard him, did you?

A. Well, I didn't formulate an opinion in my mind at that time, because I knew very much less about him then than I do now.

Q. Well, do you regard him now as a competent and great geologist?

A. Yes.

Q. Now, you say you went to work in connection with the Texas State Geological Survey?

A. Yes.

Q. What year did you follow that work?

A. I began in the spring of 1889.

Q. 1889?

A. 1889.

Q. Now, that was before you went to the Arkansas university, was it?

A. No. After. [2255]

Q. During the time?

A. I was employed by Doctor Branner when I was at the Arkansas university.

Q. Oh, then you did some work with Doctor Branner while you were in the university?

A. No. I left the university in the spring of 1888 under the employ of Doctor Branner, and was employed by Doctor Branner and engaged on the

State Geological Survey during 1888, when I left the Arkansas service.

Q. Then you went to Texas?

A. Yes sir.

Q. Well, what year did you say you entered the University of Texas?

A. 1892.

Q. Then you were on work connected with the State Geological Survey before you entered the university?

A. Of Texas?

Q. Yes.

A. Yes.

Q. Is that correct?

A. That is correct.

Q. Who was the state geologist in the direction of that work at the time you went there?

A. Texas?

Q. Yes sir.

A. Mr. Dumble, E. T. Dumble.

Q. E. T. Dumble?

A. Yes.

Q. That is the same E. T. Dumble of whom it has been testified in this case that he was the consulting geologist of the Southern Pacific Company, was he not?

A. Yes. [2256]

Q. And you are working under his direction now? Is that right?

A. Yes.

Q. When did you first meet Dumble?

A. When I went to Texas, early in 1889; March, I believe.

Q. The position of state geologist at that time was a political position, was it not, in Texas?

A. It was in all states, as far as I know. Texas.

Q. And it was through the politics or political influence which Mr. Dumble was able to summon to his aid that he got the position of state geologist?

A. Not that I know of. I think not.

Q. Now, how long did you work for Dumble at that time?

A. I worked for Dumble from the spring of 1889 to 1894.

Q. Now, when did Dumble go to work for the Southern Pacific Company and its subsidiary corporations?

A. I don't know.

Q. Was it subsequent to 1894 and during that year?

A. I don't know whether it was during that year or subsequent. It was not before.

Q. So that at the time you disconnected from the government service and entered the employ of the Southern Pacific Company, defendant in this case, as an assistant geologist to Dumble, you had had a long acquaintance with him, extending from 1889 to the time you went into its employ in 1909 or 1910? Is that correct?

A. I had a close acquaintance with Mr. Dumble

between 1889 and 1894. From 1894 to the fall of 1909 I did not meet Mr. Dumble. I corresponded two or three times during that period—two or three letters passed—on scientific matters.

Q. Now, you say you worked from 1889 until 1894 with Mr. Dumble?

A. Yes sir. [2257]

Q. Now, what time was it that you were in the University of Texas for two years?

A. 1892 to 1894; that is, the years 1892-3, 1893-4.

Q. So that you were working for Dumble at the time you were still an undergraduate?

A. Yes.

Q. Now, when did you enter the Geological Survey of the United States?

A. In August, 1894.

Q. And you stayed continuously in the government service in that position until the latter part of 1909, was it?

A. Yes sir.

Q. What was the month that you left the government service?

A. You mean when I left the government service?

Q. Yes.

A. I left the government service in November.

Q. In November. What year?

A. 1909. That is, it ended with October.

Q. In 1909?

A. Yes sir.

Q. And did you then go into the employment of the Southern Pacific Railroad Company or Southern Pacific Company?

A. Yes.

Q. Employed here in California?

A. California and the adjoining states.

Q. But your chief employment has been examining lands which have probable or prospective value for petroleum, for the Southern Pacific Company?

A. Yes; our chief work has been devoted to the oil fields.

Q. And that has been also under the direction of E. T. Dumble?

A. Yes. [2258]

Q. Now, you say that you were a member of the Oil Land Classification Board in the Geological Survey when it was organized?

A. I was so informed.

Q. And were you a member of the Coal Land Classification Board also?

A. I was not.

Q. And one of the members of the Oil Land Classification Board was Ralph Arnold, the author of Bulletin 406?

A. Yes.

Q. You remained on that board or committee until the time when you left the government service to take up private employment?

A. As far as I know.

Q. Now, at that time Mr. A. C. Veatch was chair-

man of the Land Classification Board, of which the Oil Land Classification Board and Coal Land Classification Board were parts or members?

A. Not that I know of.

Q. And Mr. Veatch at that time was ex officio chairman of the Oil Land Classification Board?

A. I was not so informed.

Q. Well, you know that, don't you, as a matter of fact, Mr. Taff?

A. I do not.

Q. And during that time it was the business of the Oil Land Classification Board, in part, to classify lands which probably contained oil or which were prospective oil lands belonging to the public domain?

A. No; not that I know of.

Q. Now, you say that there was nothing during that time, while you were a member of that classification board, to call your attention, to it?

A. No. [2259]

Q. Do you think that a man who poses as a geologist of the United States government, occupying a position on an important board of that kind, classifying oil lands, would have his attention jolted or jogged by a proposal withdrawal order of some million acres of land said to contain petroleum?

A. Probably not.

Q. Don't think he would?

A. No.

Q. Did you ever hear of the order of September

27, 1909, which withdrew a great area of oil lands in California?

A. I believe I did. I don't remember the particulars.

Q. And as a member of the Geological Service of the United States, interested in the work of the Oil Land Classification Board, you would probably take some notice of such an order, would you not?

A. I might not.

Q. And you did, as a matter of fact, did you not, Mr. Taff, as a member of that board, in company with Ralph Arnold, classify about a million acres of land in California as oil lands, preparatory to the formulation and pronouncement of the order of withdrawal of September 27, 1909, known as the first executive withdrawal?

A. I did not. Neither was I informed that the board did.

Q. And you did, did you not, at that time, classify as oil lands, among a great many other townships, all of Township 30 South, Range 23 East, Mount Diablo Meridian, which embraces all of the lands involved in this suit, as oil lands?

A. I never heard of that township before I came to California in 1909.

Q. You say you were a member of that board during the year of 1909 and up until the time you left the service?

A. As far as I know. [2260]

Mr. Mills—I will read into the record at this point

from Bulletin 406, which is known as Defendants' Exhibit from page 23 of the bulletin:

“LAND CLASSIFICATION

The following areas within the McKittrick-Sunset oil region have been classified as mineral lands and such of these as yet belong to the government have been withdrawn from all kinds of entry, 'pending consideration of the question of legislation upon the subject, unless it be shown by reclassification or sufficient evidence that any particular tract or tracts thereof do not in fact contain oil,' lands classified as mineral include all those lying between the surface outcrop of the bottom of the lowest oil-bearing formation (Vaqueros) and a line marking the limits of the area in which the uppermost productive oil is known can be reached by a well five thousand feet or less deep. This margin is indicated on the geologic map accompanying this report by a heavy blue line.

Lands Classified as Oil Lands.

(Mount Diablo Base and Meridian)”

Then follow 33 townships of land, in whole or in part, and including “Township 30 South, Range 23 East: all,” which includes the lands in this suit.

Q. You had some discussion with Mr. Arnold and Mr. Veatch, during the months of August and September, 1909, about the limit at which you would classify lands said to be in a productive oil zone, did you not?

A. I did not.

Q. And at that time, after repeated conferences with Mr. Veatch and Mr. Arnold, you agreed with them that a five thousand foot well would be the limit for productivity in the oil zone?

A. I had no occasion to agree with them.

Q. You also conferred with Mr. Veatch and Mr. Arnold upon [2261] the field work which had been done, with a view to such classification upon the particular areas which should be included in that classification as a basis for the Secretary's order of withdrawal of September 27, 1909, did you not?

A. I did not.

Q. And you agreed specifically with each of those members of the board, did you not, upon all of the townships appearing on pages 24, 25, 26, 27 and 28, down to the word "San Bernardino Base and Meridian," as being proper to include in the classification of mineral or oil lands lying between the surface outcroppings and the bottom of the lowest oil-bearing formation and the line marking the limits of the area in which the uppermost productive oil zone could be reached by a well five thousand feet or less in depth, did you not?

A. I did not.

Q. You know that this classification of oil land was then used as a basis of the Secretary's order of withdrawal of September 27, 1909, and that immediately after your board furnished that classification, the Secretary made and promulgated that order, reserving and withdrawing all the lands described

in that classification and listed by your board, including the lands in this suit, did you not?

A. I did not.

Q. It was the business of your Oil Land Classification Board to classify oil lands, was it not?

A. It may have been, but it did not.

Q. It did not. Then you mean to say that Mr. Arnold is mistaken in the bulletin which was issued as an official document by the Geological Survey, when he says that that board did classify those lands, including the lands in this suit, as oil lands, during the time when you were a member of that board?

Mr. Lewers—Show where the board did classify it. [2262]

A. When I say I did not, I have information to the contrary; I did not.

Q. By Mr. Mills—Since you left the government employ your sympathies and feelings have undergone some transformation in respect to the issues in this suit, have they not?

A. Not in the least.

Q. You feel yourself somewhat embarrassed now, do you not, Mr. Taff, by finding that in 1909 you classified the very lands which you now condemn as oil lands and recommended that the President of the United States withdraw them from exploration and discovery as oil lands?

Mr. Lewers—Mr. Mills, I object to that question. I don't think it is a fair question to assume that the witness has testified to something that he has testified exactly to the contrary. He has testified re-

peatedly that he did not classify it, and the board didn't classify it, to his knowledge, and that he has information to the contrary, and in fairness to the witness, it strikes me that your question ought not to assume that double form, assuming something contrary to the facts.

A. I am not embarrassed in the least in respect to the Geological Survey or its members, or in respect to the members of the Southern Pacific Company in connection with this suit, or the classification of oil lands. I realize that I have sufficient information that every member of the Geological Survey when I left it were particularly good friends of mine and that they are so yet.

Q. By Mr. Mills—You have realized that?

A. Yes, and if I have any enemies in connection with the Southern Pacific Company, I do not realize that.

Q. You did not include in the premise on which that statement is based the possibility that your evidence in this case may be read with considerable interest by your friends, whom you classify as your friends, in the Geological Survey? [2263]

A. It may be, and they will recognize the truth of it.

Q. Now, you mean to tell us now on the record that the classification which was made in 1909 of these lands by your board preparatory to the order of withdrawal of September 27, 1909, could be made without your knowledge?

A. Yes; I have information, as I stated, that it was not made by the board as a board, in body.

Q. Don't you know, Mr. Taff, and aren't you fair enough now to say, as a geologist and scientific man, that that classification was made by that board preparatory to the promulgation of the order of withdrawal, after repeated conferences with you, between you and Mr. Veatch and Mr. Arnold in detail as to every specific description that is contained in that classification?

A. I think my memory is fairly clear. I have no memory, no remembrance, that the board as a body considered these lands in respect to their classification, as oil lands.

Q. Now, when you entered the employ of the defendant Southern Pacific Company, what was the nature of the employment laid out for you to follow by Mr. Dumble, or by your employer?

A. I was informed by Mr. Dumble that my work would be particularly in California and the Pacific Coast states.

Q. What lands were you to examine?

A. Any of the lands that were specified to me to be examined.

Q. Well, what kinds of lands, lands which were granted lands to the Southern Pacific Railroad Company, or what lands?

A. Any lands.

Q. Well, did it include lands granted to the Southern Pacific Railroad Company by grant of July 27, 1866?

A. It evidently did, since we took it up, but I was not particularly informed beforehand.

Q. And you spent most of your time upon that class of lands, [2264] did you not?

A. Yes, most of the time of the employees of the geological department, including myself, was devoted to grant lands.

Q. And those lands fall within the indemnity limitation on the west side of the main line road running from a point near Bakersfield north to a point opposite Coalinga or thereabouts?

A. I think so.

Q. Now, do you know it to be a fact that the Southern Pacific Company never had a land grant from the United States?

A. I don't know anything about it.

Q. Well, did you ever ascertain that fact?

A. No.

Q. What is that?

A. No, I did not.

Q. Did it occur to you to be of any interest to know why you were examining lands which inured to the Southern Pacific Railroad Company when you were employed by the Southern Pacific Company?

A. Not particularly.

Q. You regarded it as a sort of a family matter, didn't you?

A. I regarded it as essential and necessary to examine any lands that were specified to be examined, whether grant lands, company lands or other lands.

Q. It was not yours to question why or to make reply, but to go on and examine any lands that Dumble told you?

A. That I was authorized to examine, yes; no question of that.

Q. Now, did you, in your peregrinations about the West Side field, have occasion to examine any lands which are held or supposed to be held under lease from the Southern Pacific Railroad Company by the Kern Trading and Oil Company?

A. Yes, I think so. [2265]

Q. And did you have occasion to examine lands which were being operated on which were in contemplation, so to be operated, by the Associated Oil Company?

A. Not particularly.

Q. Well, you say "not particularly;" did you examine any lands for the Associated Oil Company, or on its behalf?

A. Not at all.

Q. Did you examine any lands in the interest of the Associated Oil Company at any time?

A. Not at all.

Q. Under the directions of Mr. Dumble?

A. I did not.

Q. You did not?

A. Not any Associated oil lands.

Q. What is that?

A. Not as Associated oil lands.

Q. Well, lands they were operating, is what I am talking about.

A. That included Associated lands and all other oil lands, the same.

Q. And you found full cooperation, did you not, with the officers of the Associated Oil Company in your examination of lands which they were operating?

A. Not any more than other companies.

Q. Not any more than what?

A. Than other companies.

Q. Not any more than the Kern Trading and Oil Company, for example?

A. No, not as much.

Q. Not as much. You had the right to go upon the Kern Trading and Oil Company lands at any time, didn't you?

A. Or any other lands, yes sir. [2266]

Q. Yes. Now, who directed you to work on the Kern Trading and Oil Company lands, so-called, and the Associated oil lands, Associated Oil Company's lands, which you examined?

A. No one in particular, as Associated oil lands or Kern Trading and Oil Company lands.

Q. Well, who directed you to go upon those lands at all and examine them?

A. I was directed by Mr. Dumble to go upon all of the oil lands in the oil fields in the west side of the San Joaquin Valley.

Q. When you entered the employ of the Southern Pacific Company, Dumble was an officer of the Kern Trading and Oil Company, was he not, and a director?

A. No.

Q. Don't you know that he was vice-president of the Kern Trading and Oil Company?

A. No.

Q. Among his other interests?

A. No.

Q. Did you know that he held any official position either as a director or officer of the Eight Oil Company?

A. No, I did not.

Q. Did you do any work for the Eight Oil Company at the direction of Mr. Dumble?

A. I did not.

Q. Did you do any work for the Buena Vista Land and Development Company at the direction of Mr. Dumble?

A. I did not.

Q. Who directed you to go out and examine the Elk Hills in 1912, October and December, and January, 1913?

A. No one.

Q. You went out on your own initiative?

A. I did. [2267]

Q. Did you expect at that time that you were—the copious notes that you took and which you referred to would be used by you as a witness in this case, on the stand?

A. Was I informed that they would be used?

Q. Did you expect, I say, at the time you made that examination?

A. I expected that possibly they might be. I had no definite information that they would be.

Q. Well, your reason for examining it was not because anybody told you, but because of your own keen interest in your employer's interests?

A. No.

Q. Is why you spent October and part of December and part of January in the Elk Hills?

A. I presumed that they might be used, as I stated.

Q. You had no directions from anybody to go out there and make those examinations?

A. No.

Q. What is that?

A. No.

Q. And nobody knew about your doing it?

A. Oh, yes, they did.

Q. Well, who knew it; did Dumble know about it?

A. No.

Q. He didn't know you were going out there to make that examination?

A. No.

Q. Did Mr. Lewers or any member of the law staff of the Southern Pacific Company know about it?

A. Mr. Lewers may have known about it, yes sir.

Q. Well, don't you think he did know about it? You say he may have known about it; didn't you

consult with him, as a matter [2268] of fact, before you went out there?

A. I did.

Q. Then why do you say, "He may have known about it?"

A. Well—

Q. Why quibble in any terms like that?

A. It was discussed, but I was not obliged to go, and I might not have gone.

Q. But you did go?

A. I went of my own volition.

Q. And you discussed the whole matter with Mr. Lewers before you went?

A. Oh, to a certain extent.

Q. Yes. And you knew before you went what you were looking for?

A. I did.

Q. In other words, you had your eyes open to evidence which you might construe in favor of the contention of the railroad company, and blinded your eyes to any evidences which might detract or minimize that contention?

A. I did not.

Q. Did you ever make examinations of Sections 18, 35 and 36 in Township 29-21 East?

A. Yes, I made certain examinations on 29-21. Will you name the sections again?

Q. 18, 35 and 36.

A. I don't think I have been on Sections 35 and 36. I have been across Section 18.

Q. Now, in Township 30-21. Did you find that?

A. (Examining map) Yes.

Q. Did you examine Section 33 on 42?

A. Not 42.

Q. 32, I mean. [2269]

A. No, I don't think I have been on Sections 33 and 32.

Q. Have you been on Section 12 in the same township?

A. Yes.

Q. Have you been on Section—have you examined Section 5 of 30-22?

A. Yes, I have been across the section, 5.

Q. Well, have you examined it thoroughly?

A. Not thoroughly.

Q. Have you examined Section 8, in the same township?

A. Yes, I have been through Section 8.

Q. Have you examined that thoroughly?

A. Fairly thoroughly, I think.

Q. Have you examined 17 in that township thoroughly?

A. Not particularly thoroughly.

Q. 18?

A. Yes, I examined Section 18.

Q. Thoroughly?

A. Fairly thoroughly.

Q. 20?

A. Yes.

Q. 28?

A. Yes.

Q. 29?

A. Well, fairly so, yes.

Q. 34?

A. Yes.

Q. 35?

A. I have been through 35 but never examined it with particular care.

Q. 15, same township?

A. Yes.

Q. 19? [2270]

A. Yes.

Q. 27?

A. I have not examined 19 with particular care.

Q. 27?

A. Yes.

Q. You say you have examined that?

A. Yes.

Q. 17, Section 17 of 32-23?

A. No, I have been in Section 17, 30-23.

Q. Section 25, same township, southwest quarter?

A. Yes, I have been there.

Q. Did you examine the southwest quarter of 25 carefully?

A. No.

Q. 31-21, Section 14; have you examined that?

A. In part. I have been through Section 14.

Q. Not carefully?

A. Not very thoroughly.

Q. 24, same township?

A. No.

Q. 31-22?

A. Same township?

Q. Same township, 31-22, Section 22.

A. No, I have not examined that particularly.

Q. 34, same township, or 34 in the township to the north of that, 30-22?

A. Yes.

Q. You have examined that?

A. I have.

Q. Section 19 of 31-22?

A. Yes.

Q. 31-24? Have you got that?

A. Yes. [2271]

Q. Section 1?

A. I have not examined Section 1.

Q. Section 9, same township?

A. No.

Q. Section 2?

A. No.

Q. 32-22?

A. 32-22.

Q. Section 1?

A. Yes; part of it.

Q. What part of it?

A. The northeastern.

Q. What?

A. The northeastern part.

Q. Section 2?

A. No.

Q. 32-23. Section 6?

A. Yes.

Q. How carefully have you examined Section 6, and at whose instance did you examine it?

A. At my own instance.

Q. How carefully did you examine it? What part of the section?

A. Western part.

Q. 21, same township?

A. No; I have not examined Section 21.

Q. 22?

A. No.

Q. 26?

A. Yes; I have been through Section 26. I didn't examine it in particular.

Q. 32-24, Section 11? [2272]

A. Yes.

Whereupon the further taking of testimony herein was adjourned until 1:30 o'clock P. M., at the same place.

On Tuesday, March 11, 1913, at 1:30 o'clock, P. M., the further taking of testimony herein was resumed pursuant to the adjournment: Present: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

J. A. TAFF,

recalled, CROSS EXAMINATION resumed
By Mr. Mills:

Q. Do you recognize the work of J. P. Lesley, entitled "The Manual of Coal and its Topography," as a standard work on that subject?

A. Not necessarily. It probably was at the time it was published.

Q. I find this statement in Mr. Lesley's work. I will ask you whether you agree with it: "Coal is never found issuing in veins from the interior of the planet, like gold and silver; nor filling irregular cross crevices in limestone, like lead; nor spread abroad in lakes of hardened lava, like basalt and greenstone; nor embedded in clay, crystallizing upward from the walls and bottoms of deep wide fissures, as bunches of grapes, or in bundles of pipes, like the hematite ores; nor lying exposed upon the surface in blocks, like native copper, or meteoric iron; but always as a thin sheet or stratum, extending through the hills as far as the hills extend, and inclosed between similar sheets of other kinds of rock." Do you concur in that statement? [2273]

A. I do not, in the main. In part, I would; in others I would not.

Q. Well, in what part do you concur?

A. I concur in the statements that coal does not occur in the earth as veins, as sheets of lava and certain other kinds of rock that he makes mention of there.

Q. Well, do you concur in the statement that it occurs as a thin sheet or stratum extending through the hills as far as the hills extend, and enclosed between similar sheets of other kinds of rock?

A. I do not. In respect to the extent of the coal beds through the hills as far as the eye could see, except that the particular coal bed in question is

found by observation to extend through certain hills as far as the eye can see, that rule will not apply.

Q. See if you concur in this: "Nothing is more surprising than the vast expanse of even the thinnest of these sheets of coal. The original deposit of carbonaceous matter seems to have been in every instance, almost co-extensive with the lake or sea in which it was laid down." Do you concur, in the main, in that?

A. I concur in the statement that it is co-existent with that lake or sea in which it was laid down, because it has not been removed from the sea in which it was laid down.

Q. Do you concur in this statement: "Each sheet of coal extends for itself and by itself as far as the mountain does in which it lies, never branching nor forking nor rolling together, but passing through the mountain from side to side, from end to end, or cleaving down through it from summit to base, from end to end, and commonly in this latter case passing under an adjoining valley and reascending through the length and breadth of a mountain on the other side." Have you ever found instances of that kind in your examination of coal lands? [2274]

A. It depends on the size and extent of the mountains.

Q. Well, have you found any of that kind in your examination of coal lands?

A. I think there are instances, yes. But that would be rather an exception.

Q. Do you concur in this statement: "The prac-

tical character of a coal bed is soon determined by a coal bed is soon determined by a few good openings upon its outcrop."

A. In the vicinity of those outcrops, yes. Not far away, necessarily.

Q. Do you concur in this statement: "Under ordinary circumstances and for all practical purposes the quality, size and mining condition of a coal bed can be explored as well in two or three days by a gangway ten or fifteen feet long, as by workings through it for a month or a year."

A. I don't think it is so.

Q. How is that?

A. Not so, as a rule.

Q. It is so in some instances, is it?

A. Local occurrences; yes.

Q. Do you also concur in this: "The only proper method is to open the same bed at numerous places along its outcrop, and from a comparison of these crop openings the actual average character of the bed within can be confidently predicted, and its contents calculated."

A. It can near those outcrops; yes.

Q. Do you concur also in this statement: "A coal bed may indeed belie itself at one point or at two where openings are made, but not a dozen. Veins of lead, of copper, of iron alternately decrease and diminish in size, rapidly and unexpectedly. The miner never knows until he strikes the vein what it will be worth, nor how soon the pocket which he has entered may close [2275] up between bare walls

Not so with coal. It varies little and seldom disappoints. What it is at one point it is likely to be much the same at another."

A. That may be with certain particular coal beds after you determine its character.

Q. Do you also concur in this: "Even intervals of hundreds of miles in which it has undergone an infinite number of slight and perhaps some striking variations, will sometimes present it at the most distant places with strangely identical features, showing how vast and regular has been the law of its deposit."

A. That won't hold good now.

Q. What is that?

A. That won't hold good in the present knowledge of the occurrence of coal.

Q. Well, it has held good in your own examinations, has it not, Mr. Taff?

A. To a certain limited extent.

Q. Do you also concur in this statement: "The great Pittsburg bed is a remarkable instance of this law, covering as it does tens of thousands of square miles, and scarcely varying from a thickness of eight feet, showing itself always a double bed, and yielding everywhere both a superior quality and quantity of coal."?

A. The great Pittsburg bed is quite an extensive coal bed, as I have determined by my examinations in parts of the Appalachian field.

Q. And it is persistent and continuous, to a great extent, over a vast area?

A. I can't say that.

Q. In its deposits?

A. I can't say that. Neither can anyone else.

[2276]

Q. Well, isn't that true?

A. The Pittsburg coal is recognized, fortunately, by its association with the rocks in which it is contained, and the Pittsburg vein is recognized over a wide area at various points because of these relations, because of the character of the formation in which it occurs, and the fossils.

Q. And because of the persistence of the stratigraphic beds in which it is laid down?

A. Over very large areas in that region of Pennsylvania and Pittsburg coal has been removed. You find it in patches here and there. You find it by relation to the formations in which it occurs, and by the fossils in that formation; but over very extensive areas it has been excluded by erosions. In mountain areas where they do not recognize it nothing is said about it.

Q. But for that erosion those beds would have been persistent without interruption, would they not?

A. I can't say that.

Q. Is not that your reason for saying that there is any change at all in the persistence and continuity of those beds—is because of the erosion?

A. The Pittsburg bed changes in thickness very rapidly in places. For instance, where I surveyed

it in Maryland and West Virginia it ranged in thickness from twenty feet down to a few feet.

Q. I am not talking about the thickness.

A. I understand.

Q. I am talking about the persistence of the beds in which the coal is found.

A. That shows the persistence.

Q. The thickness shows persistence, does it?

A. Certainly.

Q. If you have a bed which covers ten thousand square [2277] miles, that is twenty feet at one side and eight feet at the other, it is persistent, isn't it?

A. That is not so.

Q. What is not so?

A. Through ten thousand square miles. They are locally.

Q. Is it not a fact that the Pittsburg bed covers tens of thousands of square miles in continuity and in persistence of the stratigraphic beds in which it is laid down?

Mr. Lewers—Had you finished your former answer?

A. I can't answer that question in the affirmative. I have no—

Q. By Mr. Mills—You know that is so, do you not?

Mr. Lewers—You say you hadn't finished your answer?

The Witness—I hadn't finished the answer to the former question.

Mr. Lewers—You may proceed and finish it.

A. (Continuing) And, that is, taking the Pittsburg, for instance, that varies in thickness from say twenty feet down to a few feet. Within a certain limited distance it would easily—you would expect it to vary from, say, six feet, where it is in many places, to practically nothing, where it has been recognized in many places. That is, the Pittsburg vein is not recognized as being a workable vein everywhere and it occurs locally; that is, it lies essentially in the upper parts of the lands—particularly in southern Pennsylvania and western Maryland—large parts of West Virginia, for instance, where it has been very largely removed, and in many places it is not recognized, showing that it is not necessarily persistent over the territory in which it has been recognized to occur.

Q. Well, now, eliminating the question of the thickness of the beds, and assuming that it is the same thickness at all points except where it has been eroded, whether of workable [2278] character or not, it is found, is it not, wherever it occurs, and where you have examined it, between the same stratigraphic rocks?

A. No.

Q. The same bed is between different stratigraphic rocks?

A. So far as I know, between the same stratigraphic rocks; but I have not found it to be present.

Q. And it shows it was laid down in uniformity in this area?

A. The Pittsburg coal is recognized as one of the

most persistent beds. But, in connection with it, there are other beds which are extremely local.

Q. Now, in that connection, the result of that observation which you have just made would lead you to the conclusion that when originally laid down it covered a vast area and was laid down uniformly?

A. Not uniformly.

Q. Well, it was laid down with a great or high degree of persistency and continuity?

A. I don't know that. I know it is recognized over a wide territory.

Q. Yes, and is recognized between the same recognized beds?

A. Presumed to be recognized correctly, although that does not necessarily prove it to be true.

Q. Do you agree with this statement: "Upon faith of such investigations prudent men often expend large sums of money in the purchase of lands and development of the property."

A. They do. But they usually prospect those lands before.

Q. Do you agree with this statement: "Often the depth or thickness of the overlying strata is such to prohibit economical exploration from above, and the distance of many tracts from outcrops, or openings made at convenient and accessible points, is too great to justify penetration by drifts or slopes for purposes [2279] of preliminary investigation and ascertainment alone. In the nature of things, therefore, reliance must frequently be had upon such evi-

dences as may become the guide of the geologist or coal expert."

A. That is right.

Q. "Mere outcrops, disintegrated by the action of the elements and broken and mixed with debris as they often are, seldom bear witness in themselves of the quality and quantity of the coal beds behind them. Unless in such cases, therefore, they are sufficiently exploited no determination of the coal character of the overlying lands can be reached by the land department. Nor can opinions, unexplained or expressed by unqualified witnesses, suffice upon any point." Now, that statement is not from this expert, but is a statement made by the Secretary of the Interior upon a letter which you, Mr. Taff, in the year 1905, wrote to the director of the Geological Survey, upon the classification of coal lands, stating how they could be classified by geological evidence. Do you recall that letter?

A. No; I do not.

Q. Do you recall writing such a letter?

A. I think I did.

Q. It was your opinion at that time, was it not, Mr. Taff, that all that was required to classify lands which were coal lands was geological evidence and not the use of the diamond drill?

A. That would depend upon circumstances.

Q. Well, I am asking you if it was not your opinion at the time you wrote the letter—

A. To classify the lands in the immediate vicinity of the known occurrence.

Q. I am asking you whether that was your opinion at the time you wrote that letter. State yes or no.

A. With qualifications; yes. [2280]

Q. You deemed it important at that time, for the protection of the public domain, that certain coal deposits which you knew to exist, from geological inference, to be classified as coal, without further exploration than your own examination as a geologist? Is that not so?

A. Correct.

Q. And upon that letter of yours to the Geological Survey, at the time you were working for the government and not the Southern Pacific Company, the Secretary of the Interior rendered a decision which is found at 34 Land Decisions, in part at page 194 to 203, and on which advice, Mr. Taff, he made this statement, did he not, "Upon faith of such investigations prudent men often expend large sums of money in the purchase of lands and development of the property. Often the depth or thickness of the overlying strata is such as to prohibit economical exploration from above, and the distance of many tracts from outcrops, or openings made at convenient and accessible points, is too great to justify penetration by drifts or slopes for purposes of preliminary investigation and ascertainment alone. In the nature of things, therefore, reliance must frequently be had upon such evidences as may become the guide of the geologist or coal expert." Is not that true?

A. Correct.

Q. The Secretary also, based upon statements made in your letter to him, in his decision—

Mr. Lewers—Does the decision say so, or are you testifying into the record?

Q. By Mr. Mills—(Continuing) In which you concurred, Mr. Taff, made this statement, did he not: “The particular subject of the present consideration is coal deposits, and the concern is of the data which may be relied upon to determine their presence in any case. The characteristics peculiar to them, therefore, must be taken into account and kept steadily in view. [2281] These bedded deposits, generally of wide extent and of regular formation, the result of slow accumulation at the earth’s surface, following laws of occurrence common to stratified formations and consequently conforming to the lay of adjacent strata, differ radically from most other useful mineral deposits, particularly the metalliferous ores, which rarely occur in sedimentary beds, but generally in veins and pockets, and replacement, impregnation, and contact deposits, and which, from the nature of their origin, present such abrupt variations in form and character as to preclude safe prediction of their underground extension or calculation of their quantity or quality in advance of exploitation. Even where the coal beds were deposited upon an uneven floor, and vary rapidly from place to place, the geologist can easily ascertain the extent of variability and from the conditions of deposit the degree of persistency of the coal beds; and,

readily determining in most fields the geologic structure, can further determine the area of workable coal and closely approximate the depth at which an outcropping coal bed will be found in any part of the field. It is well recognized that constancy or variability at the outcrops or other exposures are evidences of the same conditions underground." Was not that statement based upon your letter, and upon things that you said in that letter, Mr. Taff?

A. It was, and dependent upon—

Q. And it is true, is it not, as a geological statement—

A. Depending on particular circumstances.

Q. Yes; but it is true as a geological statement generally?

A. With regard to the particular circumstances to which that letter had reference.

Q. And you, at that time, in preparing the data upon which the Secretary made that decision, were of the opinion that coal beds, their persistence, their position and their workable value, could be determined alone by the exercise of geological deduction [2282] without the use of a diamond drill and without the use of making trenches?

A. No.

Q. By Mr. Mills—Didn't you so state to the Secretary in that letter?

A. No, I didn't so state to the Secretary in that letter.

Q. What did you say?

Mr. Lewers—Well, if you have got the letter there, Mr. Mills, kindly produce it.

Mr. Mills—Of course I have got the letter.

Mr. Lewers—You can see that letter, Mr. Taff, if you so desire.

Q. By Mr. Mills—What did you say, Mr. Taff?

A. That letter had reference to the occurrence of coal in a particular field, occurring under peculiar conditions where the coal beds themselves were so situated and their outcrops were practically continuous.

Q. Practically what?

A. Practically continuous, outcrop conditions. Moreover, there had been very extensive prospecting opening up of those beds where they did not protrude out at the surface, there had been no drilling, diamond drilling, done. The topography and the situation of the coal beds was such that the condition was sufficient for the determination of the character of the coal. That was not intended to be a universal application.

Q. What area was it that you regarded that you could—that you then had in mind specifically correctly to determine the extent of the underlying coal beds without the use of a diamond drill, and by dependence upon your geological examination?

A. What locality?

Q. What area; what was the extent of the area?

A. The area is south central Utah, about a hundred to a [2283] hundred and fifty miles southeast of Salt Lake City.

Q. Yes, and what is the extent?

A. The extent of the outcrop?

Q. I am asking you the extent of the area.

A. Of the area?

Q. Yes sir.

A. The lateral extent is in the neighborhood of something over a hundred miles.

Q. Yes. Now, what is the other extent?

A. The other extent was—it varied from, say, from a few miles to as far as six or eight miles.

Q. To as far as six or eight miles?

A. Yes sir.

Q. Now, was eight miles the outside limit of that field that you have referred to and which you determined the underlying coal beds by a geological inference?

A. I am speaking simply from memory. I think it is proper that I should explain the beds. The coal formation to which I have referred occurs along and in what is known as the Book Cliffs, the Wasatch blow-out, in Utah. These cliffs in this blow-out escarpment is about a thousand to twelve hundred feet high. The coal formation crops out in the upper portion of these cliffs. The cliffs are remarkable for their barrenness, and clean exposures of the rocks, and sandstones and shales, and they stand out in rugged cliffs. These cliffs are intersected by innumerable canyons between gulches extending from the front or lowland into the tableland, so that the coal outcrops extend along this main cliff around the spurs and points up the canyons to where they pass

under cover around again and up and in and out through the canyons throughout this extent. So that you have the coal, you have a width there of a serrated width along the length in some cases several miles where the coals were exposed around the [2284] points of the cliffs, so that you had the great advantage of having the coal extended on both sides of the areas of it extended into the cliffs.

Q. Now, what is the widest area from the outcrop along that lateral showing in that coal field?

A. I don't remember. After careful discussion with the men engaged at that time in the coal service of the Geological Survey, as I remember it, it was concluded that in a condition of this kind, at least I remember I concluded, and it was concurred in, as far as I remember, that under such conditions if you have the coals exposed in the canyons for a distance of two or three miles from the points, and continuous throughout this area, mind you, there was several coal beds.

Q. Well, go on.

A. A workable thickness that you would have under those peculiar circumstances would be at liberty to classify the lands to the distance of at least something like, as I remember it, it was stated that six miles from the outer points to as far back as it would be were we to classify the coal lands.

Q. Now, don't you recommend the classification of such coal lands at a greater limit from the outcrop than eight miles?

A. Not that I remember.

Q. Are you positive of that?

A. No, I am not.

Q. Wouldn't you be surprised to find it extended thirteen miles?

A. It may be peculiar conditions, but I don't recall just now.

Q. So that while you were working for the government as a geologist, you were able to classify upon geological inference alone, and without the use of a diamond drill, lands which you determined to be underlain with coal, a distance of eight miles [2285] from the outcrop, at least, and while you are working for the Southern Pacific Company you are willing to testify under oath that you cannot classify coal lands now more than a few miles from the outcrop, three or four at the most; is that correct?

A. That would depend on circumstances.

Q. Well, that is what you testified to, isn't it?

A. Yes, it depends on circumstances. You should permit me to say that the evidence in the case referred to was not by geological inference, but by geological evidence, and that the coal-bearing lands, workable coals, were known to be continuous as a group of beds through this distance continuously as shown by evidence, to a distance in the neighborhood of a hundred miles.

Q. What was your geological evidence excepting the outcrops?

A. Exposure of the beds.

Q. That is outcrops, isn't it?

A. Yes sir.

Q. Those are known as oil seepages, are they not?

A. Oil seepages, yes sir.

Q. Now, suppose you had a hundred oil seepages along a distance of thirty miles, would you consider that fair evidence?

A. On the bed?

Q. Yes sir, on the same bed.

A. And near together?

Q. Yes sir.

A. Very good evidence.

Q. Good evidence that there were deposits of petroleum somewhere under that?

A. Near at hand, yes.

Q. And for a considerable distance laterally?

A. Depends on the circumstances. You would have to know your geology before you could pass judgment. [2286]

Q. Are you a chemist?

A. No.

Q. Natural gas is closely associated with petroleum, is it not; usually it indicates the presence of oil?

A. Sometimes it does, yes. It might not be, necessarily.

Q. Well, as a rule it does, does it not?

A. Well, I suspect in a majority of cases.

Q. Natural gas, in your opinion, has the same origin as petroleum, does it?

A. In part, yes.

Q. Aren't natural gas, petroleum, bitumen and

asphaltum essentially compounds of carbon and hydrogen, or more precisely mixtures of such compounds?

A. Yes.

Q. Now, in making a proximate analysis of a petroleum, of bitumen, wouldn't a competent chemist separate those compounds, one from the other, in order to get their identification as compounds of definite constituents?

A. Do that in order to determine the composition, but not necessarily, not a definite composition.

Q. They have been so determined, have they not, the component parts of petroleum?

A. Yes, a group of parts have been determined. Petroleum could be analyzed to its elements.

Q. Petroleum, then, is a mixture of compounds, a definite chemical composition?

A. No.

Q. It is not?

A. No.

Q. What is methane; what is the formula for methane?

A. I don't remember now.

Q. Do you know what the mathematical generalized formula is [2287] for determining the relation of the constituent parts that make up the compounds that form petroleum?

A. No, I am not a chemist.

Q. Then, in your testimony here with reference to your examination chemically, so-called examina-

tion of the gas seepage on Section 32 of 30-24, you did not pretend to any knowledge as a chemist?

A. No, not as a trained chemist, no.

Q. Now, methane is a hydrocarbon, is it not?

A. I think so, yes.

Q. What is it, a gas?

A. Yes, so recognized.

Q. And methane forms the chief characteristic of natural gas, is it not?

A. That is my understanding, yes sir.

Q. It runs from about somewhere in the neighborhood of seventy per cent to ninety-seven per cent of natural gas, that is, that much of methane?

A. I don't recall from memory. I could determine that from an examination.

Q. Well, is that about right, you think?

A. Probably, as you have the reference. I have not.

Q. What is ethane?

A. I can't tell.

Q. What is that?

A. I don't know.

Q. Did you ever hear of it?

A. Probably I have. I think it is—

Q. What is propane?

A. I am not familiar; I can't tell you.

Q. Well, is it a gas accompanying petroleum?

A. I don't recall now. [2288]

Q. Is ethane gas a gas accompanying petroleum?

A. I don't recall now positively.

Q. What is butane?

A. The same answer.

Q. Now, can you give us a series of component parts of definite chemical composition which make up the liquids of petroleum?

A. I cannot. I can by reference to the proper authorities. I am not a chemist, a trained chemist.

Q. Well, you know from what superficial knowledge you may have of the study of chemistry, do you not, that every component part of petroleum may be identified according to its definite chemical composition?

A. It may be identified by its definite chemical composition, but that is not the same composition as another petroleum; that is recognized.

Q. I am speaking of any petroleum, sir, either of paraffine base or asphaltum base.

A. Any single petroleum, its composition can be determined, but is a well known fact that one petroleum is not the same as another petroleum that may occur even in the same locality.

Q. I didn't ask you that at all. I am asking any petroleum, and I generalized my statement for that purpose, Mr. Taff.

A. Yes, any single petroleum can be, yes sir.

Q. Now, after the gases have been eliminated from the compounds that make up the liquid of that petroleum, it can be identified according to its definite chemical composition; isn't that true?

A. I am not sure about that.

Q. Well, are you sure that it is not true?

A. As I said, any petroleum can be separated into its component parts. [2289]

Q. Yes, and each one of those component parts has a definite chemical composition?

A. Coming from a single well?

Q. Yes sir.

A. Yes.

Q. That is true, isn't it?

A. It is. And the next day petroleum coming from the same well may have a different composition.

Q. That is, a different combination?

A. Different composition, yes sir.

Q. By "composition", you mean a chemical difference of the compounds that compose it; is that what you mean?

A. The classification of the first one would not fit the second one.

Q. But even on the second day each one of those component parts may be resolved and identified and reduced to a definite composition?

A. Yes, take it in that one instance, yes sir.

Q. So that then petroleum is a composition or mixture of component parts, each one of which may be identified and resolved into its definite chemical composition?

A. Yes.

Q. That is your understanding of it?

A. Yes, each part of any petroleum can be separated into its parts. Any substance can be analyzed into its parts.

Q. The statement that petroleum is of organic origin is an assumption chemically, is it not?

A. No, not necessarily.

Q. Not necessarily. What do you mean by that, that it might be but is not necessarily?

A. Well, under certain conditions, to the minds of some men where you have not information as to the source of it, it [2290] may be an assumption. In the majority of cases it is a geological certainty.

Q. Do you know of anybody who actually knows? Don't you know that there have been a great many theories of the origin of petroleum, none of which have been exploded and disproven?

A. Not very well.

Q. Petroleum is a hydrocarbon, is it not?

A. Yes.

Q. Yes. Did you ever hear of a hydrocarbon being found in a meteorite, in which the possibility of the organic origin is excluded?

A. I think I have heard that petroleum had been found in a meteorite, but that does not necessarily assume that the petroleum came in the meteorite.

Q. Well, what I am talking about is whether it excludes the postulate that the petroleum found there was of organic origin.

A. No.

Q. You think it would not?

A. No.

Q. Oh, you disagree, then, with those who maintain that it excludes the possibility of organic origin?

Q. Well, you may assume that if you wish.

Q. Now, as a matter of fact, the origin of petroleum as of organic origin is an assumption by those geologists who attach themselves to that theory?

A. No, the information is too definite to call it an assumption.

Q. Did you ever hear of the carbide theory of the origin of petroleum of Dr. Mendeleef?

A. I have.

Q. What was that theory?

A. I have heard of the theory. [2291]

Q. What is that?

A. I have heard of the theory.

Q. That theory, like all the others, was based upon assumption, wasn't it?

A. I should say strictly on an assumption. Not like all other theories, but of some others.

Q. What was the assumption in that theory?

A. I don't remember the details of it now in full, but it was that petroleum, a certain petroleum, was of inorganic origin, that is, it was produced within the interior of the earth, an association of certain heat and metals and iron and carbonate compounds, the details of which I don't remember, because it has been some time since I examined it, and I have never had occasion to place any confidence in it.

Q. Well, in brief, it was a theory that iron carbides existed in the earth and percolating waters and the iron carbides formed hydrocarbons; is that correct?

A. I think so.

Q. Did you ever hear the theory of N. V. Sockoloof?

A. Not by name.

Q. Of the cosmic origin of bitumens? You never heard of that?

A. I don't remember the details of it now. I may have seen it.

Q. That was somewhat recent; 1890, about the time you started in studying geology, wasn't it; 1889?

A. In was in 1888.

Q. 1888. Well, we won't quibble over one year. Now, in support of that conception, Mr. Sockoloof stated the finding of hydrocarbons in meteorites, did he not? Did you ever hear the theory of Mr. Ross, O. C. D. Ross, that petroleum originated from the action of sulphurific gases upon limestone? [2292]

A. I have heard such a theory, but I don't remember that name.

Q. Now, all of those theories, together with the theory that petroleum is of organic origin, depend upon an assumption, do they not? They are all theories, and the one which is most accepted is that petroleum has its origin in diatoms?

A. Yes, and other organic matter. The ones you have named I think would be stricly assumptions.

Q. Now, Mr. Taff, that seepage in Section 32 of 30-24 to which you have referred at some length is, in your opinion, a gas seepage, I take it, from your direct testimony?

A. It is not.

Q. You think it is not a gas seepage?

A. I am sure it is not.

Q. What is it; what kind of a seepage is it?

A. I didn't observe any seepage at all.

Q. But you are sure it is not a gas seepage?

A. I am sure it is not.

Q. What?

A. Yes.

Q. Do you know a gentleman who has appeared on the stand here by the name of Frank M. Anderson, who confesses to have dabbled some in chemistry and its allied subjects?

A. Yes, I know Mr. Anderson.

Q. He is an associate of yours, is he?

A. Yes, he was.

Q. Of the Southern Pacific Company?

A. He was.

Q. Well, you have conferred with him in this case, haven't you?

A. No.

Q. You never have talked with him about what he was to [2293] testify in this case, or discussed it at all?

A. Not a word.

Q. Never a word?

A. Not a one.

Q. You are the gentleman that was present up there in the hearings at San Francisco during the time that Mr. Ochsner, another associate of Mr. An-

derson, was on the stand, and while other people were testifying?

A. Yes, a few.

Q. How many times did you attend the hearings up there?

A. Three or four times, as I remember.

Q. Didn't you there discuss with Mr. Anderson while he was attending those hearings, the geological theory which you would adopt in this case?

A. Mr. Anderson didn't attend a single hearing there when I was present.

Q. Well, now, that Mr. Anderson to whom I have referred also made a visit or two or three to this oil seepage on Section 32 of 30-24, and by the way, that is the seepage around which it appears by evidence in this case the former oil expert of the Southern Pacific Company by the name of Treadwell located lands for their petroleum values because of that oil seepage. Mr. Anderson on his attention being called to that says: "A—I didn't see this in 1911. Q.—When did you see it? A—When did I see this spot that was called the gas blow-out? Q.—Yes. A—In Section 32? Q.—Of 30-24. A—I saw that in November, 1912. Q.—By Mr. Lewers—What is that, in your opinion? A—A gas seepage. Q.—Describe what kind of a gas seepage. A—It is a gas seepage or, perhaps more than one gas seepage in the slope of the hill and from the sides of the canyon at this point in Section 32. The outcrop as I saw it consisted of brownish stain or a series of brownish stains on the slope of the hill, and

by digging [2294] into it we found some sand stained brown, containing crystals of sulphur. It had a peculiar fetid odor. The material was dug out with a hand pick and it was warm and showed more than the atmospheric temperature and showed a little moisture." And so forth. Now, you disagree utterly with the distinguished gentleman who uttered those prophetic words in the matter of its being a gas seepage?

Mr. Lewers—I think in all fairness you should call Mr. Taff's attention to the fact that he said it was not a petroleum gas seepage but directly from organic matter.

Mr. Mills—Mr. Lewers, I object to your interjecting any remarks here to assist this witness. We are getting along all right.

Mr. Lewers—I know you are getting along all right, but you have misrepresented Mr. Anderson's testimony, and I object on that ground.

Mr. Mills—I am reading it exactly. The court will know when he reads it.

Q. Now, Mr. Taff, laying aside and out of view for the moment these angry interruptions by counsel, I will again ask you if you, on reconsideration, agree or disagree with the distinguished gentleman in his statement that that was a gas seepage?

A. I disagree in regard to his idea as a gas seepage.

Q. Now, you have stated that methane gas is a

hydrocarbon, and which makes up the chief characteristic of natural gas; that is correct, isn't it?

A. Yes sir.

Q. Now, this distinguished gentleman also said that this gas seepage was a gas seepage of methane gas; in other words, it was a gas seepage of—or a gas seepage which was closely associated as you say with petroleum—

Mr. Lewers—Now, I object to the question on the ground [2295] it is a misrepresentation of what Mr. Anderson said. He didn't say it was closely associated with petroleum.

Mr. Mills—I didn't say that he did. I said Mr. Taff did.

Mr. Lewers—And Mr. Anderson testified that was Marsh gas.

Mr. Mills—Mr. Anderson testified it was methane gas.

Mr. Lewers—Well, that is marsh gas.

Mr. Mills—Well, of course it may be marsh gas, in your opinion. He testified methane gas. This distinguished gentleman says that methane gas is closely associated with petroleum.

A. Not always, I didn't say that.

Q. Always except in the Elk Hills; you made a reservation about the Elk Hills, did you?

A. I have not seen any signs of hydrocarbon gas in connection with the seepage, I mean.

Q. Well, do you regard Mr. Anderson, a man competent to detect by the avenue of his nostrils or the

avenue of any of senses, a methane gas which has a fetid odor?

A. I think he is mistaken.

Q. You think he is mistaken?

A. Yes sir.

Q. Now, one of you must be right; which one do you think is right and which is wrong?

A. I am right, because I can give you my reasons for it fully.

Q. Well, he gave pretty full reasons.

A. I have not heard them yet.

Q. He was rather full of reasons.

A. I have not heard them yet. I would like to hear them.

Q. Well, now, we have come to the point where one of you is mistaken, grossly so, because you are diametrically opposed. One says this gas seepage is methane gas, while the other man says if it is methane gas it is associated closely with petroleum, but [2296] not in the Elk Hills, and the other one says that it is not a gas seepage.

Mr. Lewers—I object on the ground that counsel seems unable to restrain his desire to make stump speeches in which he deliberately and consciously misstates the evidence given by not only the witness on the stand, but by the other witness in the case.

Q. By Mr. Mills—Does marsh gas always come from a marsh?

A. No.

Q. Never does, does it?

A. It may.

Q. Oh, it may?

A. Possibly, yes.

Q. Well, where does it in the Elk Hills or where do you know of any place where marsh gas comes from a marsh?

A. No, I do not.

Q. You do not. Now, when marsh gas is used as an expression describing or defining a gas, do you mean methane gas?

A. Not necessarily.

Q. Not necessarily?

A. No.

Q. Then Mr. Anderson is again mistaken, although full of reasons, when he says that marsh gas is methane gas, is he not?

A. I can't tell you whether he is mistaken now or not.

Q. Do you know much about it yourself?

A. I am not a chemist, but I know that the residue in the exposure mentioned in Section 32, 30-24 is not a residue from a hydrocarbon in the form of gas or petroleum.

Q. And not being a chemist you concluded that by reason of the denseness of your senses on the subject?

A. I am not a chemist; never made a test.

Q. That was one of the reasons you came to the conclusion, [2297] because you didn't know much about it; you said you are not a chemist?

A. I am not a trained chemist, no.

Q. Well, you will be pretty well trained if you stay in this suit right along. Did you notice any evidences of sulphur in the sand in that oil seepage on 32?

A. I did not.

Q. Do you say that there is no sulphur there?

A. There may be sulphur present in those sands, or in connection with the outcrop, but there was no evidence of sulphur in the impregnated sands themselves, as far as we were able to examine.

Q. Is sulphur derived from hydrocarbon gas?

A. No, I think not.

Q. Is it present in hydrocarbon gas?

A. Yes, it may be.

Q. Well, it is generally a characteristic, isn't it, the presence of sulphur is generally associated with petroleum, and petroleum gas or natural gas?

A. Most petroleums, many petroleums have a small percentage of sulphur, yes.

Q. Now, when you say petroleum gas, that is when you use the term, Mr. Taff, you mean natural gas, don't you, as distinguished from all other gases that come from the earth?

A. Yes, natural gas.

Q. When you use the words "petroleum gas" you mean natural gas such as is customarily found and burned?

A. Natural gases vary much in composition just the same as any other kind of carbons.

Q. Well, it is a fact, isn't it, that sulphur is close-

ly associated and almost invariably found in connection with natural or petroleum gas and petroleum?
[2298]

A. It is often found, yes, in small quantities.

Q. Well, it is characteristic of that petroleum gas, and of petroleum; its universal presence is known as a characteristic of those hydrocarbons?

A. I think it is generally present in small quantities.

Q. Now, that outcrop, which has been designated by men who know as an oil seepage, in 32, and extends over quite a distance of ground there in that canyon district some three or four hundred feet?

A. Yes, a few hundred feet; that is, in separate occurrences.

Q. Well, only where it has been interrupted by the erosions of the canyon itself?

A. I dare say it has been cut through, yes; it is surface.

Q. But it would be somewhat continuous, persistent?

A. It has been cut through, because it is a local occurrence, yes.

Q. Now, you made an examination you say by drifting into the side of the hill?

A. Yes.

Q. Did you drift in more than one place?

A. Just one place in the richest exposure.

Q. And how wide was the place you went into; you say it was about eight feet high, I think, twenty feet deep, and how wide was it?

A. Nine feet high.

Q. Nine feet high, yes.

A. It was about—well, from four to six feet. It was not regular, quite.

Q. Now, you can't tell from drifting in at that one place, can you, Mr. Taff, what the condition is, not visible to the naked eye and underneath the surface at any of the other places in that three or four hundred feet where that cropping shows, or [2299] that seepage shows?

A. It is driven in connection with the exposures and their local character would be quite conclusive.

Q. Well, it is conclusive as to that place, we will say.

A. Yes.

Q. Now, you don't know what it is a hundred feet away from there, or how far into the hill it goes, do you?

A. No, but I have good reason to believe.

Q. Well, I am not asking you what you have reason to believe; I am asking you what you know. You don't know, do you?

A. Not positively, no.

Q. Nor you don't know at any spot except where that drift was sunk into the hill?

A. No.

Q. What is the character of that formation or how far it extends or what its shape is you don't know definitely?

A. Not definitely.

Q. So that your examination there was not at all conclusive either as to the character, the extent, manner, shape, or structure of that three or four hundred feet of stained sand which has been called a gas oil seepage?

A. In my opinion it was definite.

Q. I didn't ask you what your opinion was.

A. I thought you did.

Mr. Lewers—I submit you did.

Mr. Mills—Perhaps I am mistaken. Read the question.

(The question is read by the reporter.)

A. It was conclusive.

Q. Only as to that particular place?

A. Yes, as to the whole occurrence.

Q. Oh, you are able now to state how far in you had to drift at any one point along that distance of four hundred feet? [2300]

A. I didn't say that. You didn't ask that question.

Q. Well, I asked you—

(The question is read by the reporter as follows: "Q—So that your examination there was not at all conclusive, either as to the character, the extent, manner, shape or structure of that three or four hundred feet of stained sand which has been called a gas oil seepage.")

Q. By Mr. Mills—I mean of the entire, you understand.

A. We selected the largest exposure.

Q. Well, I mean—

A. I will answer the question.

Q. Did you understand my question?

A. Yes, I did. We selected the thickest and largest exposure. By that exposure we determined positively the character, we determined without any question, in connection with the erosion.

Q. Well, did you determine the character of an exposure four hundred feet away from that by your sinking a drift there?

A. Not in all details.

Q. No. Did you determine the shape or the structure of that gas or oil seepage three hundred feet distant from the place you tunneled in there?

A. No, but we recognized it as being the same.

Q. What is that?

A. No, but we recognized it as being the same.

Q. Same what?

A. Same material and occurring in the same manner.

Q. I am not asking you about the material; I am asking you about the structure and shape of the entire occurrence?

A. No, I didn't need to.

Q. No, then in fact it was not conclusive of either the structure nor the shape nor the extent of that gas and oil seepage, nor couldn't be without a drift at every point, could you? [2301]

A. The character of that material was all that was necessary for us to determine, in determining that—

Q. You testified here—

Mr. Lewers—Let him answer.

A. We determined that. The other is—was to my mind then and is now, entirely immaterial.

Q. By Mr. Mills—That is the shape and structure?

A. Therefore we did not take the expense to remove every bit of it from the surface of the hill.

Q. I see. So that you don't know what the shape or structure is on that point; all you know is the character of the material at the point you excavated?

A. That is all we went for. It was definite.

Q. Was the gas which was emanating from that tunnel a hydrocarbon?

A. I didn't recognize and gas.

Q. No, you didn't?

A. No.

Q. Did you look for gas?

A. Yes sir.

Q. How did you look for it?

A. I said "looked for it"; I made inspections to determine, to determine that, of course, by the senses.

Q. Did you light any matches?

A. Yes, I lit matches.

Q. Where?

A. In the tunnels.

Q. Did you dig into the tunnel with a crowbar or anything of that sort and then light a match to see if there was gas escaping?

A. No.

Q. You didn't make a very conclusive test as to whether [2302] there was gas emanating from there, did you?

A. Decidedly.

Q. You smelled some gas, didn't you?

A. No.

Q. Didn't smell any at all?

A. No sir.

Q. Did that fetid odor which was so offensive to Mr. Anderson escape you?

A. It did not. It was very evident.

Q. He said it had a peculiar fetid odor.

A. It did.

Q. You detected that?

A. Yes.

Q. Did you know at the time Mr. Anderson had detected that odor?

A. No.

Q. Did you carry a thermometer with you?

A. No.

Q. How did you determine the degrees of difference in the temperature?

A. Didn't determine the degrees. I determined the variation by the touch.

Q. By the touch. What would you say was the difference in temperature from the outside to the inside?

A. Very slight.

Q. One degree?

A. Well, probably.

Q. Probably?

A. Probably; I don't think you could determine.

Q. Might be less than that?

A. I hardly think so. I don't think you could detect less than a degree ordinarily by the touch.

[2303]

Q. How many degrees, then?

A. I don't know; one or two, maybe.

Q. What?

A. One or two, probably. It was very slight. I recognized the fact that the exposure had been made small, and it may have been greater and dissipated.

Q. You think you can detect the difference of one or two degrees by the touch?

A. Yes, I believe you can.

Q. Now, gas, that is, natural gas, such as methane, in combination with ethane, and some of its allies, has a tendency to percolate transversely across the stratigraphic beds more readily than petroleum, does it not?

A. I am not sure of that.

Q. Don't you think gas will penetrate an ordinarily impervious substance to oil, quicker than oil will?

A. I am rather inclined—

Q. Particularly under pressure.

A. I am rather inclined to believe a very rare petroleum will penetrate where gas will not, by capillary attraction.

Q. Is it not a scientific fact, Mr. Taff, and agreed to by scientists generally, that gas will penetrate the formations of the earth more readily than oil?

A. I hardly believe so.

Q. And are not the gases on that account found in the higher strata above the oil because of that ability to penetrate transversely those beds?

A. They are higher above the oil chiefly because of the difference in specific gravity. Oil penetrates chiefly by capillary attraction, and I believe will penetrate through spaces, a very light oil, through spaces a gas will not pass.

Q. I thought you said oil migrated because of the [2304] hydrostratic pressure, on your direct examination?

A. Yes.

Q. And that that was the reason that it was found along the outcrop. You now think it might have been due to capillary attraction?

A. Well, capillary attraction plays a part.

Q. Plays a part?

A. Certainly, for the reason that I believe, and I think it is a recognized fact, that if the rocks contain no water, it would have no collections of oil at all.

Q. Now, isn't it well recognized as a scientific fact, Mr. Taff, that gas will penetrate transversely across beds which oil will not penetrate?

A. I don't think so. It depends, of course, on the fluidity of the oil, to a certain extent.

Q. Now, if there had been some movement at that point in Section 32 where that gas seepage is found or oil seepage, which would break the crust sufficiently to reach the gas and oil formations below, you

wouldn't at all be surprised, would you, to find that the gas coming up had stained the sand at that point?

A. You wish me to assume what you do.

Q. Yes.

A. If the rocks were fractured.

Q. Well, I mean beneath the surface where there is no evidence of it at the surface at all, would you then be at all surprised to find that gas had come up there from the gas and oil formations below and stained that sand?

A. Assuming as you do that the rocks are fractured, and assuming that the oil and gas do occur below, I would expect to find them, but I didn't see any indications of fractures.

Well, would you regard it as a violent assumption that oil and gas exist below, when the Associated Oil Company, according to the testimony in this case, have discovered a gusher well on Section 30, and another one on 24 and 30 of 30-24, [2305] and another one on 24 of 30-23?

A. It is not a violent assumption to expect that some oil occurs at those localities of which you speak.

Q. You are willing to admit, then, under pressure, that there is some oil underneath that formation there?

A. I am willing to admit the presence of oil, if it can be seen.

Q. What is that?

A. I am willing to admit the presence of oil if it can be seen, and it certainly can at certain places.

Q. So that you would determine, from such evi-

dence as you have now, that some oil does exist below the formations in that vicinity?

A. I have not had the evidence to determine the presence of oil beneath the localities mentioned.

Q. Well, don't you know, even unofficially from your connection with these defendant companies, that on a section which corners on 32 of 30-24, where this gas and oil seepage is found, that the Associated Oil Company have brought in a gusher, and have produced thousands of barrels of oil there?

A. I don't know it.

Q. Did you ever hear of it?

A. Probably I have, yes.

Q. Well, if you have heard of it, and your hearing is at all accurate, you then would say, wouldn't you, that there is some oil underneath that formation in 32?

A. Not necessarily.

Q. You are not even willing to admit that, are you, that there is some oil there?

A. No, I cannot say that. If a hole is drilled there and the oil is brought up, then I would recognize the fact.

Q. Now, you stated that in your opinion the Elk Hills are [2306] somewhat of more recent uplift than the Buena Vista Hills; didn't you make that statement?

A. I believe I did.

Q. On what do you base that statement?

A. On the character of the folds, and upon the

extent of the erosion into the hills produced by those folds.

Q. How much difference in erosion is there between the Buena Vista Hills and the Elk Hills?

A. I can't state the difference in feet. It is a recognized fact by those who have studied it and myself—

Q. I am not asking you about the recognized fact of other Southern Pacific geologists; I am asking your opinion.

A. I am speaking of myself. I recognize the fact.

Q. You say there is a difference in the erosion between the two; you have testified there is a difference. Now, what is the difference?

A. The erosion in the Buena Vista Hills is considerably deeper.

Q. Well, how much deeper?

A. I can't state the depth in feet.

Q. You can't state it in feet?

A. No.

Q. Yet you say that the reason for assigning the Elk Hills to a more recent upheaval than the Buena Vista Hills is the difference in erosion.

A. That is the chief difference.

Q. And that is as far as you go?

A. On the character of the folds, that is sufficient.

Q. Now, there is a difference of from one hundred to two hundred feet, is there, as far as you have ascertained and observed?

A. Yes, it is greater than that. [2307]

Q. How much greater is it?

A. I can't state.

Q. Is it three hundred feet?

A. I can't state in exact feet.

Q. The Buena Vista Hills have a sharper anticline, have they not, than the Elk Hills, and would tend to erode faster?

A. Not necessarily.

Q. What do you mean by "not necessarily"? You use that term so much, I don't know that I understand you.

A. Well, the erosion would depend, the depth of the erosion would depend upon the comparative—the difference would depend upon the comparative difference in the elevation of the hills and steepness of the slopes. Now, in th Buena Vista Hills—

Q. That is, by the steepness of the slopes, you refer to the anticline, the sharpness?

A. No, the surface of the ground.

Q. Well, where the surface reflects anticlinal structure, underneath, that would be the same, wouldn't it?

A. The sharpness of the folds in the Buena Vista Hills is greater than that in the Elk Hills.

Q. Now, how much difference would that make in the erosion?

A. That would indicate, of course, that originally the slopes were steeper, but that is not the case at the present time, because of the more extensive erosion. In fact, the streams are cut clear across the Buena Vista Hills and down deeply into the core of it, while in the Elk Hills the cuts are not so deep. The Elk Hills are higher than the Buena Vista Hills.

Q. Now, assuming that the two hills were put up at the same time, on the same day, if you please, but that one of them had a sharper anticlinal structure than the other and more steep, how much difference would there be in erosion because of that difference in sharpness of anticlinal structure in the Buena [2308] Vista Hills as compared with the Elk Hills, from that period until this time?

A. If they were the same, I think, of course, the progress of erosion in the steeper slope would be greater than it is in the gentle slope.

Q. You think it would amount to three hundred feet due to that cause alone in, say, the time which has elapsed since the hills have been put up, assuming them both put up at the same time?

A. I think so.

Q. You think so?

A. Yes sir.

Q. Well, now, did you know, Mr. Taff, that oil was discovered in the Buena Vista Hills at 2400 feet and in the Elk Hills a gusher was found at 2700, which exactly meets your prediction, a difference of three hundred feet?

A. I didn't say three hundred feet.

Q. So that assuming your statement to be correct that, due to erosion alone, the sharper fold would erode off three hundred feet faster during that elapsed period than the less sharp fold, the Elk Hills, it would be reasonable then to account for the difference of depth in which oil was found in the respective groups of hills?

A. No.

Q. One at 2400 feet and one at 2700 feet?

A. No.

Q. So that I now have, according to your own statement, a determination and reasonable explanation of the difference in the depth of the two oil-sands?

A. No.

Q. Well, isn't it a fact, Mr. Taff, that oil was discovered by the Associated oil Company at 2700 feet in the Elk Hills? [2309]

A. If you say so it is probably so.

Q. Don't you know it to be a fact?

A. I don't remember the exact figures at the present time.

Q. And don't you know it to be a fact that oil was discovered on Sections 10 and 11—I have forgotten which—where the Honolulu well is, in the Buena Vista Hills, at 2400 feet?

A. Probably so, but that 2400 feet, without any question to speak of, is much lower in the section stratigraphically than the bottom wells in the Elk Hills. They start from different positions in the rocks, and from the fact that if they are at the same depth, it wouldn't be any conclusion in regard to the relations of the rocks.

Q. What is the depth of oil-sand in the Elk Hills near the anticlinal axis where the successful wells of the Associated Oil Company have been brought in?

A. I don't know; I don't remember.

Q. Did you make any examination to find out what the depth of sand was there?

A. I have seen the logs, I think, of the wells.

Q. Who furnished you the logs of those wells?

A. The logs of those wells, I think were obtained, if my memory is correct—

Q. I am asking you who furnished them to you.

A. Oh, those logs are present in the files of our office, as I remember.

Q. In the Southern Pacific Company's office?

A. Yes.

Q. What logs has the Southern Pacific Company in the Elk Hills?

A. I can't give you the number of the logs.

I don't recall that there was a hundred and fifty-[2310] nine feet of oil sand found in one of the Associated-Oil Company's wells in the Elk Hills. I don't recall the exact figures. As I remember, there were oil-sands recognized by the log. Assuming that there was an oil-sand there of a hundred and fifty-nine feet, I would conclude that that would not be as great as in many wells,—at least, in the Midway field. I have not made anything like a comparison. I don't know what the average thickness of the sand is in the Midway field. I cannot name any well in the Midway field that has over a hundred feet of oil-sand, but my memory is that some have greater thicknesses than that. I would consider an oil-sand a hundred and fifty-nine feet a large showing.

Assuming that it is true that a well on Section 24

of 30-23 of the Associated Oil Company struck oil-sand at 2750 feet, which continued to 3160 feet; that a well on Section 26 of that township struck an oil formation at 3138 feet, which continued down to 3050 feet, and assuming that the indications in all these wells were practically the same, and indicating in all likelihood that they were in the same formation, I would not consider that as indicating that the sands in which oil had been discovered in these three sections are persistent and continuous for a great and considerable distance, because there are a few isolated localities and they wouldn't be sufficient in an area so far removed from known development to determine the extent of those oil-sands. I have no knowledge on which to base these assumptions.

The well on Section 30, 30-24, is practically two miles from the well on Section 26, and approximately a [2311] mile and a half from the well on section 24. I don't think this fact indicates that the persistence and uniformity of that formation passed through section 25. My opinion differs from that of Mr. Anderson, my colleague, on that subject. The same formation might pass into sections 23 and 27, or it might not. I wouldn't want to be in a position of asserting that it did.

On the assumption that the thicknesses mentioned are correct, and that the formations specified in the logs of the three wells are approximately the same I could not have reason to assume that the formation, as a stratigraphic body, probably continued over the entire area of lands in this suit.

I would agree with the first part of the statement of Mr. Anderson in his testimony in this case when he says: "I believe all of those formations which you have specified in the three logs are approximately the same, Mr. Mills. The formation as a stratigraphic body would probably continue over the entire area you name, but the conditions of making showing of oil is another matter," but I would not agree with the latter part.

If I knew those assumed sands were sands, properly speaking, and that they were found in those various wells in positions corresponding to the structure of the hills and in relation to other rocks that I could have a check to know that they were the same, then I would change, to some extent, my opinion in regard to the continuity of the sands. Without the assumption of some more data than that assumed above as to the thickness of the sands in the wells mentioned, I [2312] would not assume that there was a continuity and persistence of the oil-sands through the lands contiguous to those wells. I would assume that it was not contiguous unless I had more information or assumed information. Without more information it does not mean anything to me to find, in a triangular form, three wells, showing an enormous thickness of sand at about the same depth. As a geologist I could not determine anything from that.

A well in the center of the Elk Hills which would bring in a thousand barrels of oil the first day, and possibly run to five thousand barrels a day, when

first brought in, would, from what we know of conditions in the Buena Vista Hills, and conditions in very much less favorable circumstances in other parts of the oil field, be an extremely poor showing if it was properly brought in. As to what I would want as a good showing, I will say that it would have to come in under such a pressure that you would not be able to hold the well.

I am not so prejudiced in this case that I cannot fairly and truthfully answer material questions. My answers are based upon facts. I have not schooled myself for the purpose of holding my position to swear this case through at any cost. I have not taken any forethought in regard to the matter at all. As to whether Frank M. Anderson, Mr. Dumble and Mr. Ochsner and myself have cast about, jointly or separately, in order to find some tenable theory on which to account for the productivity of the successful wells that have been brought in by the Associated Oil Company, to the disadvantage of the Government in this suit, I will say [2313] that I cannot answer for the other men. As for myself, I have not spent a moment in "casting about". My conclusions are based entirely upon the facts that I learned in the field before this question and this suit were ever raised.

As the evidence will show, in the beginning of the deposition of the Monterey, which is now the Temblor Range, was a series of islands; that is to say, a part of the range had been pushed up above the sea level. The range was submerged. Then followed

the Monterey series of depositions, during an extensive subsidence, followed by an uplifting of the Range to a greater extent than before the deposition of the Monterey series.

At the time the islands existed, the shore-line was oscillated. It is evidently near what is now the center of the range. The low lands or islands were essentially along the line of the axial part of the Coast Range, of which the Temblor Range is a part. There were evidently oscillations in the uplifting of the Temblor Range. Many of those, of course, cannot be read very well. Following the uplift of that range, the coast line passed clear out of the San Joaquin Valley and went to its present position. I don't know of anything that would have prevented the shore line extending out to about where the Elk Hills and the Buena Vista Hills exist to-day, but there is evidence against it.

It is shown in part by the development of the field, and if the shore-line extended out beyond, so that the region in there was land towards the center of the valley, in our deepest wells, they go down through. I [2314] think we would have evidence of such more than we have at the present time, and that contrary to what we know of the conditions in the following Monterey-Santa Margarita time and continuing up to the Etchegoin time, because all of those deposits are marine deposits, showing that the sea connected with the ocean, extended and continued in the valley.

The evidence as shown by the relations of the Santa Margarita deposits, the later Santa Margarita de-

posits, and the Etchegoin deposits, are against the hypothesis of supposition, that the shore-line following the uplift of the Temblor Range might have been even beyond where the Elk Hills and the Buena Vista Hills stand today, and the supposition that the shore-line retreated far into or toward the center of the San Joaquin Valley.

The evidence that there is 159 feet of sand in the Elk Hills does not necessarily support that supposition. Those sands are far away from the shore-line. The existence of that sand is not evidence that the shore-line was there. During the deposition there was a subsidence, and the coarse material was laid down along near the shore and the fine material, which shows no indication of ripple-marking or wave-action, was beyond the shore-line toward the depths. Fine sand may be carried by the undertow out quite a way; and then there may be a cessation of the deposition—it is not to be presumed that the subsidence was continuous at the same rate. During a hesitation in the subsidence or during a greater deposition, you may have shoaling, shallow water conditions, extending quite a way out, so that the wave-action or undercurrents would extend quite a way [2315] out, and you would have inter-collated fine sands and medium fine sands. You would not expect the sands to be deposited uniformly over the entire San Joaquin Valley. It is true that sands are deposited that way in various parts of the earth over large areas, and in great thicknesses in certain directions, parallel with shore-lines, or near shore-lines. There might be such

depositions over at least a hundred miles wide by a hundred miles in length. I don't know. I know of the Dakota sandstone which are known to exist at least two hundred and fifty miles in one direction and two hundred miles in another. That is a fresh water deposit. The existence of the large areas of sandstone and sands mentioned would not in the least affect the conditions in the San Joaquin Valley. The conditions there were entirely different during the deposit.

The Dakota sands are a fresh-water deposit, evidently laid down over a comparatively flat country—known to be a fresh water deppsit because it contains beds of coal, in places, carbonaceous materials, and it is spread over a wide territory in a similar manner with sands, gravels, and so forth, covering a very broad extent through the Great Plains country in the same general region—Colorado, Nebraska, and northward over that same region—which are fresh water deposits, distributed by the oscillations of the streams, and so forth, and stable conditions of land. Following that, there was a subsidence, and the later cretaceous depositions, of which the diatoms are the base there and which became marine engulfed the whole region we refer to.

My reason for drawing the distinction is not entirely due to the fact that the deposition was in fresh water in one case, and in salt water in another. The conditions of the depositions are different, and the land conditions are different. In one

case we have a comparatively limited valley upon which there is an uplift, prominent uplift, which is the case of the coast range in the San Joaquin Valley. That is a trough.

The uplift in the Dakota sandstones is essentially continental, very broad; no warping to speak of, but the land evidently formed a broad extent of country and was very flat; in which, in certain places, the coal occurred, coal conditions, and in some places workable coal occurs in Dakota. Each condition, whether of deposition or of economic deposits, will have to rest upon its own interpretation of the conditions in the field where it occurs, and the conditions of the deposition of sand along the west side of the San Joaquin Valley is entirely different than at the deposition of the Dakota sandstone. One is local, and the other is a broad, continental movement.

If the sand is found in the Midway field forty to sixty feet in thickness, and the same sand, stratigraphically, is found in the Elk Hills a hundred and fifty-nine feet in thickness, it would indicate to my mind that the sand was laid down at the same time, or, that it was connected; it may or may not be connected. The difference in thickness would not indicate anything particularly from the very reason that the coarser materials near the shore-line, as a rule, are very much thinner. The fact that that they were stratigraphically the same would not indicate anything par- [2317] ticularly. It may have been that in one place the deposit of sand was very much more

rapid than in another because of the influx of the sand along that particular part of the shore-line or near the shore-line. Assuming the sand to be the same, of the same character, you might probably assume that the shore-line was out there in the Elk Hills. It would not mean anything particular because you would not have knowledge of the connection between the sand in the two localities mentioned. The influx of the sand is from the shore toward the sea. We know that the sands penetrated in the Elk Hills are not the same as those penetrated in the Midway field.

I began examining lands in the Midway fields in December, 1909, and have spent two or three months, all told, in the field making such examinations. I have been in the Coalinga, Kern, Maricopa, Midway, McKittrick and Lost Hills fields. I don't know the exact number of wells in any of these fields. I should estimate that there are probably as many as 854 in the Coalinga fields; 1690 seems to be a large estimate for the number of wells in the Kern fields. I have not spent very much time in that field, particularly in the development of territory. I don't know that there are 283 wells in the Maricopa fields. I never made an estimate; in fact, I don't know where the division line is between the Maricopa and Midway fields. 900 wells seems to be a large estimate for the number of wells in the Maricopa and Midway, but I couldn't say what the number is. 304 wells seems a large estimate for the number in the McKittrick field. I don't believe there are quite as many [2318] as fifty-six wells in the Lost Hills.

I could not pretend to estimate in any way closely the production of oil in these fields. An average production of 54.9 barrels per well in the Coalinga field might appear to be a reasonable production, but I need more basis for consideration than I have in mind, to make a fair estimate. My information is not sufficient to enable me to say that an average daily production of 15.7 barrels per well in the Kern field would be a reasonable production. I know that quite a good many wells in the Kern field are pumped that make a small production, anywhere from ten barrels, up. I cannot say that an average production of forty-nine barrels per well in the Maricopa fields would be a reasonable estimate for the reasons I have given above. That production seems low, but I cannot pass judgment on it, and I shall have to make the same answer as to the Midway, where the production is assumed to be a hundred and six barrels per day. I would presume that an average production of fifty-eight barrels per well per day in the McKittrick field would be a reasonable estimate from the fact that most wells in the McKittrick field are older than wells in some of the other fields. I can't say that an average of ninety-one barrels per day per well in the Lost Hills would be a reasonable production. In answer to the question as to whether I regard a well in the Elk Hills which would produce on an average of three hundred and fifty barrels per day so long as it was permitted to flow, commercially paying oil territory. I will answer, without further information, that the well would be an absolute failure. I base [2319] my

answer on general information in regard to the conduct and behavior of wells in that general field. If complete conditions in regard to an estimate were stated, I would make a different answer probably. The question as to whether such a well would evidence excellent prospective oil territory would depend upon circumstances in regard to the position of the well in the hills, or in respect to the structural conditions. Such a well in the position of the Associated Oil Company well on 30, 30-24, would be a symptom of oil production in that immediate vicinity, around that well. In other territory and under other conditions I, as a geologist, might recommend the investment and expenditure of money with less evidence than the anticlinal structure which we have in the Elk Hills, and the fact that the well was sunk and brought in at the rate of 350 barrels per day until it was stopped by people who were operating in other territory. But if I lacked the information in regard to the situation, I would not conclude that that would be sufficient evidence to indicate excellent productive oil territory.

I claim to be competent to judge what would be a paying well in any territory in those fields from the general information I have in regard to the fields; in regard to the drilling, and in regard to the production, notwithstanding the fact that I do not know the average production of the wells in any one of the fields mentioned above.

A geologist, in attempting to pass upon the value of oil territory might, or might not, first estimate the

[2320] production of the wells in the territory he was examining. That would depend upon circumstances as to whether he came into that part of the field first. He would realize that, if he determined any thing positively he would have to study his geology carefully, and he might do that first; that would be the most essential part of the work. I cannot, on the assumption that the average daily production in the Coalinga field of the active wells is 54.9 barrels, for the Kern field 15.7 barrels, for the Maricopa field 49 barrels, for the Midway field 106 barrels, for the McKittrick fields 58.5, and for the Lost Hills 91.6 barrels, say what would be the production of an average paying well in the Elk Hills, because I can't tell what the average cost of the drilling of the wells would be in an attempt to get oil in the Elk Hills.

I know of my own knowledge a little about the production of wells in the Elk Hills. I was there when they were producing a little. I examined one well on section 26, 30-23 that was producing, and another well which was not producing at the time I was there. The producing well was estimated at forty-five barrels per day. From the best information I obtained, those wells were four thousand feet deep. When I was over there in the Elk Hills I was, to a certain degree, seeking information to be used by me as a witness in this case to support the contention of the railroad company.

I am acquainted with W. A. Williams. I think he is the only geologist of the Associated Oil Company. I don't know whether he is the chief geologist or not.

He did [2321] not tell me when I went over there to make that examination that he regarded sections 24 and 26 of 30-23 and 30 of 30-24 as having a good position for oil-bearing; that he had advised the Associated Oil Company to prospect and develop those lands; that the oil was discovered on 26 and 24 of 30-23, and on 30 of 30-24; that after a careful examination of those lands and the adjoining lands, based on his knowledge, education and experience as a geologist, he recommended the development of those lands for oil purposes; that there was a distinct evidence of anticlinal structure accompanied by outcroppings on the anticlines in the Elk Hills, which in his opinion would influence any one in the expenditure of money in developing that territory; that he found croppings of gas in several places; along the anticline where gas had escaped from the ground; that on digging down by a pick into one cropping, lighting a match, the flame would flicker as the gas came up through it; that those croppings included the gas cropping or seepage on section 32 of 30-24, which he says is on the same anticline as the wells which were drilled on the three sections I have named; that he had examined carefully the daily drilling reports of all the wells, which had to be submitted to his office, showing the formations gone through and the indications reported each day; that the daily slips on Well No. 3 on 24 of 30-23 from a depth from 2750 to 3160 feet showed gas with oil; that in his opinion the formation of the Elk Hills was practically the same as the formation in the McKit-

trick proper, and in the Buena Vista Hills, and of the same thickness as the Buena Vista Hills. He did not tell me any [2322] part of that statement, and I don't know that those things are true.

My opinion might be affected to a slight degree in regard to the particular locality where the wells were located if, in the Associated Oil Company's well No. 3 on 24, 30-23, 300 feet of oil and oil formations and gas formations which varied from 1000 to 1500 feet in thickness, was struck, and if, within a mile or a mile and a half of that well, there had been wells found with an immense pressure of gas, and if none of the gas or any part of it was marsh gas, and the gravity of the oil on section 26 was 38.5 degrees, and if the discovery of oil was made on section 30 of that township at 2712 feet, and if oil was encountered in both shale and sand, and if the oil flowed out over the casing for ten days or until the men operating the well stopped the flow by drilling deeper and pushing the casing past the formation; if, on section 26, 30-23, oil was encountered at 3104 feet, the principal supply of oil came in that well from 3240 feet in both shale and sand, and flowed for a year and three months, off and on, and always flowed when they were not working on it. Upon these facts I would not reach the conclusion by any means that the lands are commercially valuable for oil.

With these facts in mind I do not know that I would condemn the territory, but I don't know, either, that I would favor it under the circumstances. If these things are true it might alter my opinion in the par-

ticular locality as to the production of oil. The locality [2323] of these wells is near the apex or axis of the anticline, where the wells are situated in sections 24, 26 and 30, and for that reason I would consider the facts mentioned a very poor showing.

I don't know whether a man who has drilled 250,000 feet of oil wells in his experience as a practical oil driller in charge of crews, has as much experience as I have in estimating the cost of bringing in a producing well. Such men as I know receive their wage, and that is practically all they do know, as far as cost is concerned.

As superintendent of a company, drilling to that extent, I dare say he would gain ample information to enable him to make an estimate, but that does not necessarily apply to a driller. If a man after that length of experience should say that a well in the Elk Hills producing fifty barrels of oil a day, would be a paying well at a dollar a barrel, I would raise the question as to the reliability of his estimate. I never superintended the drilling, or drilled an oil well myself, but I consider myself competent to judge the cost of putting down a well. I mean by that, that I am in a position to examine and determine, and have the means to determine the cost.

I am satisfied that there is oil in the Elk Hills. You may let it appear fully in the record that there is one geologist of the Southern Pacific Company that acknowledges there is some oil in the Elk Hills, a little.

I do not presume that all the oil escaped along the shore-line of the eastern flank of the Temblor Range

before the Elk Hills were uplifted. There might have been [2324] some left there. I have not concluded that hydrostatic pressure drove all the oil out. I did say that the water in the formation drove the oil up. I stated that there had been a constant drain of oil from the Etchegoin or Monterey time at McKittrick which continued uninterruptedly. I have not made the statement that all the oil was drained from the Elk Hills; it was not so drained entirely.

I saw deposits of breccia in section 14, 30-22, at the railroad cut north of McKittrick. I would not say that they were in place. They were brought down by a stream. I did not see any which had been transported by the stream. The hills north of McKittrick are in line with the Elk Hills, but not a direct continuation. I am not able to swear that the structures do not join, but that is my opinion from the best evidence I can get. It is a continuation of the general line of structures, but there seems to be a lapping of folds, somewhat in the same order as the Buena Vista and McKittrick hills. I would say that there was the same correlation between those hills and the McKittrick hills that there would be between the McKittrick and Buena Vista hills. The Elk Hills were essentially one uplift. I can't say whether there was a partial uplift prior to the main uplift. There was an uplift in the Elk Hills before it reached its present stage. There was evidently a movement from the time the uplift began till the present time; but you can't compare the separate low ridges that form the Elk Hills as to age.

There have been several movements in the McKittrick anticline. The Elk Hills and McKittrick Hills were not all [2325] one general movement. I cannot tell that the last squeeze or pressure in the McKittrick Hills was earlier than the main uplift or any uplift in the Elk Hills. The likelihood is that there are movements going on there at the present time in both places.

The presence of gas is a suggestion of the presence of oil, but not necessarily a good indication. I would not consider gas by itself as a good indication of oil. Many occurrences of gas have led men to spend money who didnt get any oil. I stated in the paper which I wrote sometime prior to the publication of Geological Bulletin 381, at page 511, as follows: "The principal oil-bearing rock in this region and the only one which has produced oil in any considerable quantity is at or near the base of the Trinity sand, a little more than 400 feet below the surface at Madill. The oil-bearing rock is a deposit of compact sand and gravel, but the particles and pebbles are not cemented together. Although the oil seems to be almost wholly confined to this horizon, gas has accumulated in other positions in the Trinity sands besides the one in which the oil is found, and this would seem to indicate that oil might be found at similar horizons farther south, where they lie at lower levels and at greater depths from the surface."

In the vicinity or at some distance from an actually proven oil field, the presence of gas is an indication of the presence of oil.

I now agree with the statement made by me in part 2 of an annual report of the Department of the Interior, [2326] published by the United States Geological Survey in 1900, wherein I said at page 285: "A knowledge of the geologic structure of the rocks in which coal beds occur and of the combined effects of structure and erosion on the topography or surface configuration of the land is necessary to the most successful economic prospecting and exploitation of the coal. Except to test the thickness and quality of a particular coal bed, the drill not be called into use in a coal field of this nature. All the known coal fields are associated with sandstone beds of considerable persistency, which make their presence and location known by more or less elevated hills and ridges. When the interval between such sandstone and coal beds is once established, the crop of the coal may be located as rapidly as the sandstone ridge or outcrop can be traversed. The dip of the sandstone may be determined at almost any point by measurements on its outcropping ledges. The coal beds, on the contrary, usually lying in shale, have their edges worn down and concealed by soil and rock debris. The sandstone and coal near at hand remain nearly parallel. The distance from the coal outcrop from that of the sandstone can be readily estimated when the dip is known. The deeper the dip, the nearer together will be the beds at the surface. The position of the crop of a coal bed being known, a knowledge of the grade and approximate depth beneath the surface throughout its area of occurrence is dependent en-

tirely upon a knowledge of the structure. With such knowledge the availability of the coal for mining, according to its inclination and depth beneath the surface, and the area of coal which may [2327] be successfully mined may be known, and a proper estimate may be made for the necessary mining plant and facilities for transportation of the coal. The proper method of mining in a particular locality can be best determined by the study of the structural features of that region."

Notwithstanding that statement, I am not willing to withdraw the statement in my testimony, that the best way of determining the area and extent of coal is by the drill.

There is no uniformity of rule concerning the currents or persistence of coal beds. Variations occur in three general ways: It frequently happens that bordering the coal basin where the coal has been deposited there have been deposited sediments, sands and clays in shallow waters; occasionally incursions of the bodies of water contiguous to the coal swamps, coal areas carry these silts and sands into the coal area during deposition, so that you have an interfingering of shales and sands in one direction with the coal in the other direction; coal beds broken up. That is where it has been found in a solid bed, for instance in the middle of the coal area where the sediments are not laid down, tracing that as you can in many cases, you find it broke up, fingering out, and being mixed with silts and sand sediments, so that the good coal or workable coal may become worthless because of the

quantity of sediments brought in and laid down at the same time. That is a common occurrence, and a matter that has to be looked after carefully in making an inspection and survey of coal fields. Often there is no means of determining on the grounds by surface in- [2328] spections just where these silty and sandy sediments may come in, and in what direction they come in. Another variation in regard to the deposition and occurrence of coal is based upon its relation to the local land areas. Its border-line will be irregular; naturally slight elevations of land would penetrate into swamps from the main body of the land on the side, local elevations or hummocks or islands may occur in coal swamps which is naturally seen in the swamps at the present time in the deposition of peats. After the coal is submerged and it becomes a coal bed, why these are interferences that have to be dealt with in considering the coal. An island that interferes with the coal may be entirely outside and not connected with the coal outcrop, and again it may be in large part or small part.

Another cause of the variation of coal sometimes occurs because of erosions; that is, there will be a subsidence and incursion of the waters that will carry sediments and completely cover the coal bed to a shallow depth, and because of climatic changes, introduction of river currents, or slight elevation of the land, channels may be cut (through) this sediment and into the coal, displacing and removing part of the coal beds. That has been found to occur. Those are the principal causes for the variation of coal beds, as far

as I remember. Of course, when you come to the matter of variation of the quality of coal, it is not necessarily governed by those conditions mentioned.

Coal does not always occur in large areas. It [2329] has been found by investigation of coal fields, that as far as exposure and development can show, that coal swamps in which the coal is deposited were long, narrow bodies parallel, most likely, to shore-lines, and again they were broad and circular, and again they are local, occurring in small swamps, small separated areas. That would naturally occur where you have a low flat land that has sink holes or local irregularities. During subsidence, and when the water reached those areas, you would have local, small swamps in which peaty material would accumulate, and which would finally produce coal, so that each individual area, in order to determine its character and possible original extent would have to be inspected practically by itself.

After the preparation of the preliminary report relative to the Choctaw coal lands above referred to in my testimony, I made a classification of the lands, and as to the general situation and persistence of the coal, and as to the ease or difficulty with which its extent could be determined, I will say that the coal field lies in east, west direction along the northern slopes of what are known as the Ouachita mountains. Those mountains were the land areas during the deposition of this coal. The coal as exposed is approximately parallel to this shore-line. The present out-crop of the coal and the coal dips to the northward generally

down beneath the Arkansas river valley. The outcrop extends from the western part of what was then the Choctaw nation, and now central and southern Oklahoma, eastward into Arkansas and forms the Arkansas coal field.

The conditions there would render a determination [2330] of the persistence of the coal easy. It was easy to determine the persistence of coal in the direction and with the outcrop, but not in the other direction,—that is, as I was just beginning to explain, the coal dips downward beneath the Arkansas Valley towards the north. The same formations come out on the north side of the valley and the south side of what is known as the Boston Mountains in Western Arkansas and Eastern Oklahoma; and on that north side, while we can recognize the formations, the coal is of no account.

I prepared the material from which the Circular entitled “Department of the Interior, Circular No. 2, Maps of Segregated Coal Lands in the Wilburton-Stigler District, Choctaw Nation, Indian Territory”, just handed me, was compiled, and also the map attached to it. That circular covers the central portion of the area of coal land I have just referred to.

The circular mentioned was at this time offered in evidence and marked Defendant’s Exhibit No. 114.

The Board of Oil Land Classification, concerning which I testified on cross-examination, did nothing to my knowledge. I think it was not taken as a serious institution by the members of the Geological Survey; that is my impression. I got information from Mr

Ralph Arnold, the other and principal member of the Coal Classification Board, that the Board had not classified the lands referred to in Bulletin 406. Mr Arnold made that classification himself. [2331]

The deposit known as the Dakota sandstone, referred to in my cross-examination, was, in the main, laid down in shallow, shifting fresh waters. An examination of the sandstone would lead geologists to consider that it was laid down in the presence of currents of water. The formation is cross-bedded to an extreme degree; by that I mean that the beds overlap each other. Besides that, there are frequent indications of ripple-markings, local interferences of currents of water, local erosion and redeposition, during the formation of the Dakota sandstone.

It was not deposited in deep water, but was carried there by fresh water, by stream action, by the oscillation of streams upon a very slightly inclined surface. I would not expect to find and do not find anywhere, to my knowledge, any similar conditions existing where there is no large continental body bounding the particular area. I certainly would not expect to find deposits of sand carried over such an area adjoining a long narrow island or a series of islands.

As to what, in addition to my own personal investigations upon the ground, have been the sources of my information in regard to the geology of the west side of the San Joaquin Valley, particularly in the vicinity of Sunset and McKittrick, I will say that early in 1911, in the latter part of March, we began a detailed survey of the Sunset-McKittrick region. We began

at the south end, south of Maricopa, and carried the work northward, including the entire Temblor Range above the great fault which lies upon the southwest side of the coal fields in Sunset, Midway and McKittrick, across the oil field, I should say, oil field of the Sunset, Midway and McKittrick. [2332] At the end of the working season of 1911, sometime in June, we had completed the area to the north edge of the McKittrick township, the township in which McKittrick occurs. In 1912, we resumed the work and carried it northward to a point west of the Lost Hills, including the Lost Hills. We also returned and continued work southward and westward around the south end of the San Joaquin Valley where developing is being projected or had been projected.

That work was in my charge and under my direction, and was done by three principal assistants: G. C. Gester, B. L. Cunningham, Fred H. Kay, E. G. Gaylord and B. F. Parsons. The last two devoted only a part of this time to the south and the north—to the south of Maricopa and to the north of McKittrick. Mr Kay was connected with the survey until the work had been carried north of McKittrick.

As to what supervision I had over the work, and as to what I did in connection with it, I will say that I visited the parties of which there were two working in co-operation at various times, remaining with the parties until in each case we were assured that the geology of the particular districts was thoroughly understood. In some cases where there were some differences of opinion as to some details between the

parties, why the work was gone over together and checked and conclusions reached. In this way, the entire formations of the area were carefully surveyed and mapped, and in all the interior portions where the formations occur, careful inspection was made in practically [2333] every section of the region. Maps were made when the work was done. The only satisfactory way to carry on detailed geologic mapping is to do the mapping while the work is being done from day to day, so that the proper conferences can be had and adjustment of the work can be made, and if there are differences of opinion, why the back work is in hand.

During the time the work was going on I examined the maps made there by different individuals constantly in the field, and the members came to the office and we kept in careful touch with the progress of the work, so that as far as I am concerned I felt that the geology as understood by myself was as complete as by any one or all of the men that did the work. I will say, by the way, that these men are college trained men and have had experience, trained in geology in the universities and considered entirely competent men.

It would not be possible to determine the sort of wells in the Elk Hills that would be productive and commercially profitable by taking the average production of oil wells in any other locality, without at the same time determining which of the other wells were paying, and without also knowing the depths to which the various wells went. As an illustration,

I wish to refer particularly to the McKittrick field, which is the nearest to the locality mentioned, and that is during my inspection of that locality all the wells were investigated as to their depth and mode of drilling and the difficulties, the water condition; the water condition was considered with [2334] particular care; the production of the wells were inspected and considered with particular care with respect to the water problems, and it was found that a large part of the field had been inundated by water from the syncline which lies to the east of the McKittrick front in the Elk Hills; that by an inspection since that time which was in the latter part of 1909, it is found that this water area has considerably enlarged and at the present time occupies a larger part of the now developed and producing McKittrick field, so that the wells that were once highly productive in some cases now approach one hundred per cent of water so that their production of oil is very low. I know by that that an average production of the McKittrick fields would be no criterion upon which to make a comparison of the value of the production in an undeveloped field.

Difference in the depth would certainly make a difference in the cost of production.

With the knowledge we have of the structure, the oil sands in the wells on section 26, 30-23 and 30, 30-24 referred to in my cross examination, could not be on the same stratigraphic plain because they should be nearer the same distance from the surface than they are assumed to be. In reaching that conclusion

I have taken into account the difference of the surface topography and also the fold in the anticline. The crust of the anticline that passes through section 26 passes near the southwest corner of section 20 in township 30 - 23, and I do not think that a well sunk near the middle of the southeast quarter of section 20 to the depth of 4005 feet which showed no sand, [2335] but a continuation of shale and hard shell from a depth of 2500 feet down to the entire depth of the well, would indicate the continuity of any sand bed throughout that territory. I do not think any portion of section 22, 30 - 23 is on the same anticline on which the well in section 26, 30 - 23 is situated. It is situated on the corresponding anticline that passes through 26, corresponding local fold of the same general anticline, and the well on section 30, 30 - 24 has approximately a corresponding position on the same anticline.

The assumption that an oil formation was encountered in the well on section 30, 30 - 24 at a depth of 3700 feet, and from that down to 3100 feet or a little lower, and that a well on section 22 on the same anticline went to a depth of 2980 feet, found no oil, and there encountered a heavy flow of soft water, would not indicate to me the continuity of the oil formation assumed to be in section 30.

The geological relations between two territories such as the relation between the old Etchegoin shore-line and the Elk Hills and the Buena Vista Hills, are not determined by merely measuring distances as a crow would fly; and that cannot be done

in that particular case because the structural conditions are different at the present time, and without doubt have been different for a long period of time, that is, back until the deposition of the rocks that contain the oil, and the two localities cannot be compared in their geological relations in connection with the occurrence of oil.

As to the chief geological or structural differences, I would say that in the most southerly locality measured [2336] ed from the outcrop to the central part of the Buena Vista hills, the structure is simply and essentially a monocline from the outcrop down to the Buena Vista Hills; in other words there are no structures intervening that would interfere with the passage of oil from the underlying rocks to the rocks above. At the other end, the other locality where an approximately corresponding distance was measured from the outcrop to the extreme southern edge, southwesterly edge of the Elk Hills crosses the southern part of the McKittrick anticline which is, as has been testified to, a very old anticline compared to the fold of the Elk Hills and which has interfered with the accumulations of oil eastward and from which very long periods of time oil has been wasting from the rocks in which it had its source, and the rocks in contact, and as has been explained it is adequate reason for the oil conditions of the Elk Hills.

RE-CROSS EXAMINATION.

Concerning the map which I am examining with reference to the position of the anticlines in the Elk

Hills, I will say that it was not prepared by me, it was prepared by men who were associated with me in the field. I have checked it in part; I have checked it in those localities.

The red line indicates the anticlines. The green line represents the limits or outcrops of the Tulare formation, the exposed formation on the surface of the Elk Hills. The green coloring is carried across from the south part of the Elk Hills and crosses the valley. The map is not a [2337] complete map; it is the result of partial work in the field. The fact that the light green coloring goes down across a certain township lying near the foot of the map, and there quits, does not mean that the Tulare formation ends there. The explanation of that is that the results of the work on the township to the south occur on another map. This is a partially complete map of results of field work prepared in the progress of the field work. It is complete so far as I know in respect to the outlines of the Tulare formation. In other respects in regard to the exact position of the structural lines as shown on there, and as to the exact outcrop of brea, certain changes have been made since this map was prepared, on account of the difficult structures, there were differences of opinion, and this was prepared by one or two men working together, and the other men working over the same field raised certain questions in regard to the difficult structure, and in regard to the position of things. It does not represent accurate results in detail in

some respects. There have been changes in some respects on account of additional work.

The map referred to was here offered in evidence as plaintiff's exhibit 5-H.

The witness continuing, testified as follows:

The red coloring on 30 - 22 represents the outflow of brea, surface brea. The yellow represents the McKittrick anticline, and the outcropping of the Monterey, Santa Margarita formations. The little red marks on section 32 inside of the line, indicate the surface of the fold, slightly folding, showing also slight indications of an anticline. [2338] The two marks on section 32, 30 - 24, crossing the larger mark, indicate that the rocks dip to the northeast and southwest in that locality. The long mark in section 32, 30 - 24, extending generally in a southeasterly and northwesterly direction into section 30, indicates the trend of the anticline, but whether the accurate dips could be obtained there is a question. As to the red blotches in section 34, 30 - 22, I will say the red blotch furthest north in the southeast quarter of this section indicates surface tar, sands, that were obtained principally from — probably wholly from wells that are abandoned; tar out of the wells and some surface. The other indicates, the one down near the southern line of section 34, indicates an outcropping of the Santa Margarita or Monterey formation, and seepages of tar. The locality was so small it was not colored.

The letters "Qual" in section 20, should be

“Quat”, and is an abbreviation of quaternary, recent deposits.

On the assumption that in the Associated Oil Company's well on section 24, 30 - 23, an oil-bearing formation 410 feet thick, beginning at 2750 feet, was found; that in its well on section 26, 30 - 23 oil was discovered at 3138 feet, and the oil formation continued at 362 feet; that in its well on section 30, 30 - 24 oil was discovered at 2712 feet, and an oil-bearing formation continued at 338 feet; and upon the further assumptions that the surface of the ground on section 24 was 970 feet above sea level; that the surface of the ground at section 26 was 1308 feet above sea level, and that the surface on section 30 was 950 feet above sea [2339] level, I would say that the assumed oil horizonz would be practically at the same level; but, without further check to identify and correlate the oil sands, it would be entirely unsafe to correlate them and declare them to be the same. It is true, all of these wells occur in the central part of the Elk Hills where the structural conditions are not particularly or extensively variable; still, in order to correlate, I think a man seeking for the truth would demand more evidence before he would declare or attempt to correlate them as being the same. I would want more evidence as to these particular wells, as to the character of the sands and the character of the rocks above the sands and below the sands; and if the sands were the same, this would not tend to prove a great deal of the land on each side of

those wells and particularly along that anticline.
[2340]

Equity No. 221

IN THE DISTRICT COURT OF THE UNITED
STATES FOR THE NINTH CIRCUIT SOUTH-
ERN DISTRICT OF CALIFORNIA
NORTHERN DIVISION

THE UNITED STATES OF AMERICA,
Plaintiff,

—vs—

THE SOUTHERN PACIFIC COMPANY,
a corporation, et al,
Defendants.

EXHIBIT A.

Condensed Statement of Evidence
in Transcript on Appeal as Ap-
proved by the Court and to be
Printed.

VOLUME III.

E. T. DUMBLE, a witness called and sworn on be-
half of the defendants, testified as follows:

DIRECT EXAMINATION.

My home is in Houston, Texas. My official resi-
dence is at San Francisco, California, where I am
consulting geologist of the Southern Pacific Com-
pany. I was appointed to that position in 1897.

In 1875 I went with the general office of the Houston & Texas Central, which is now a branch of the Southern Pacific, and the Sunset lines, the Atlantic System of the Southern Pacific. I was with them until 1879. During that time I made numerous geological examinations and reports for them, and from that time until 1887 I was consulted frequently by them on geological matters.

I was State Geologist of Texas from 1887 to 1897.

In addition to having offices in San Francisco in connection with my duties with the Southern Pacific, I have an office in Houston, Texas, in connection with the Rio Bravo Oil Company, and also at Tampico, Mexico, in connection with the East Coast Oil Company. I have resided in Texas since 1852. [2342]

I first became connected with the California Oil fields in 1901. I can fix dates from a series of yearly diaries which I have kept to keep track of my movements and my small expense accounts for the company, and such matters as that, for a number of years. I kept the diary in 1901, and since that time.

Prior to the 1st of January, 1903, I had no fixed office anywhere. I was working all over the country, from Texas, to Mexico, to Portland, wherever I was called, and I did my work wherever I might happen to be, but kept, as far as I could, copies of my correspondence. January 1st, 1903, I opened an office in Houston, and the latter part of March of the same year I opened one in San Francisco. Since that time it has been customary for copies of letters and re-

ports to be sent, if I was at San Francisco, to the Houston office, and, if I was in the Houston office, to San Francisco, so that we have had, from the first, at least duplicates of a large amount of correspondence at both places — that is, I had two files, one file at Houston and one file at San Francisco. With reference to each file, however, that at San Francisco and that at Houston, there were some things that were not sent to the other—things pertaining strictly to the California field might not be sent to Houston, or things pertaining strictly to the Texas fields might not be sent to California. And, furthermore, if a letter came to me at one place and I answered it from there, sometimes a copy of the letter that I received at the one place was not sent to the other, although a carbon copy of my answer was sent. So that, in the early part of the work the files are [2343] not absolutely complete, to that extent.

The files in my San Francisco office burned in the fire which occurred there April 18, 1906, and such portions of those files as I have now were taken from my Houston office.

My connection with the California oil fields began in July, 1901. I came to San Francisco on receipt of a telegram from Mr. C. N. Hayes, who was President of the Southern Pacific Company at that time. I arrived at San Francisco on the 9th of July, where I saw Mr. Julius Kruttschnitt, General Manager of the Southern Pacific Company, and made an appointment to meet Mr. Hayes the next day. I met Mr.

Hayes the following day, and he told me of the oil work that was being done at Oil City and McKittrick, and asked me to go to those points and look over the work and report to him whether, in my opinion, it was being properly done.

On July 12, 1901, I left for Bakersfield and Oil City. At Oil City I met Mr. J. D. Treadwell, who was in charge of the properties, and with him went over the company's plant on section 3 and looked through the operations generally in that field. The next day we went to McKittrick and looked over that, and I returned to San Francisco, arriving on the 15th. I made my report to Mr. Hayes on the 17th, in writing. I have no copy of that report, which dealt with the operations as they were being conducted by Mr. Treadwell on those two properties, the one at Kern river and the one at McKittrick. By operations, I mean the drilling of wells and the production of oil. It was not a geological report. [2344]

From that time on, I acted in an advisory capacity to Mr. Kruttschnitt. Requisitions for materials in the field were sent to me for approval, and I also passed on requisitions for authority to drill wells. I passed on such matters as went to Mr. Kruttschnitt as Manager.

I had a great deal of work to do after July 17, 1901. I was working at that time in the coal fields in Oregon, doing some prospecting work around Medford at different points. I believe right immediately at that time I made a flying trip to Coos Bay and on up

the road to Eugene and Helen, and all the different coal fields from which I could learn anything in Oregon. And after that I put in a force for prospecting the coal at Medford and at Evans' Creek. I spent the balance of the month of July in Oregon.

I left San Francisco for Texas on the 13th of September, and I arrived in Houston on the 17th. Subsequent to that time I carried on investigations of that kind at other places up to some time in July, 1902. Outside of my advisory work on the two oil fields which Mr. Treadwell had charge of, I had nothing to do with reference to oil field work until the 31st of July, 1902, when I received a telegram from Mr. Kruttschnitt to meet him in Houston, where I met him on August 5th, when he told me that he wanted me to take up the examination of the oil fields in Texas and Louisiana, which I immediately proceeded to do, and continued with for some months.

On the 29th of August, 1902, I received a telegram from Mr. Kruttschnitt in which he asked me to suggest a man [2345] to take charge of the oil territory in California. I didn't find anyone available for that purpose except Mr. Josiah Owen, who was at that time managing the prospecting work I was having done in Oregon, and I telegraphed Mr. Kruttschnitt recommending him. I telegraphed Mr. Owen to report to Mr. Kruttschnitt, and on the 11th of September I wrote a letter to him, which I believed to be the letter referred to in the testimony of Erwin Owen.

In that letter which is attached to plaintiff's exhibit 4-H, I gave information regarding the field, and instructions as to what to do. After I communicated with Mr. Owen he came to San Francisco and took up the work, as shown by his reports. He had not been employed in any way in connection with the California oil field prior to September, 1902. From the best information I have he examined section 3 in the Kern River field and the McKittrick fields — the properties we are operating, and also went to Coalinga. I was not in California then.

Before leaving San Francisco in September he, under my instructions, obtained maps showing the company's holdings in the Valley from the Land Department of the Southern Pacific Company. The map just shown me was a map that was furnished Mr. Owen at that time, and which has been in my possession ever since. The date stamped in the upper left hand corner with a rubber stamp indicates the date it was forwarded to him by the Land Department. The only changes made in the map since that time are pencil shadings outside of the territory shown by the Land Department that I put on it, to show the land that the Santa Fe owned. There were no other changes except maybe pencil figures showing the town- [2346] ships so that I could get at them more readily. The red and green shadings on the map were there at the time it was received by me with the exception of these pencil shadings, which are of a different color entirely. The written legend which appears on the lefthand side of the map was

on it when I received it. Mr. Owen did not have this map with him in the field. He may have had a copy of it or something of that kind, but this particular map has been in my possession since December, 1902.

The map referred to was here introduced in evidence and marked defendant's exhibit 115.

The statement in the legend of this map which says, "All shaded tracts reserved from sale because in or near oil territory" refers to lands that were not reserved by me. Mr. Treadwell had told me that there was a reservation. What it covered I did not know. I have no personal knowledge by whom the reservation was made.

Mr. Owen's first work was geological only, and he made reports of his work. I came to San Francisco on November 13, 1902, and took up my work there in connection with Mr. Kruttschnitt and Mr. Owen. The first work was to make a trip through the California oil fields, getting an idea of what they were. I made that trip with Mr. Treadwell. I went to Bakersfield on November 16th, and started to work on the 17th. Spent the 17th, 18th and 19th at Oil City in the Kern River field; went over all the different territory there. This trip was for the purpose of looking after the [2347] oil production possibilities of the California fields. In preparation for that trip I had read the different authorities that I could find on that field, — publications which had been made, bulletins of the States Mines Bureau, and the United States Geological Survey—such papers as that which

I could obtain. It seems to me that I had Eldridge's Asphalt Report, I am not positive about it. I had Watt's reports and such things as that.

After being at Oil City with Mr. Treadwell, we went to McKittrick on the 20th, and spent that day looking over the different properties there, from the south end to the north end, ending with our property, and the Shamrock, and all the properties right up to the line. We went to the quarter section on which Mr. Treadwell had drilled. I don't know the number of those properties. We also went to section 7, in 30-22. I think possibly we had one well going down on what was known as the North End Lease in that vicinity, which was showing salt water, gas and sulphur, at that time. I believe that well was drilled by Mr. Wible, or he was interested in it. There were wells which had been sunk over near section 7, where they claim to have gotten a little asphalt; they were not producing oil. The wells sunk by the company in 1901 were at the south end of that field. They were working on them at that time. I don't think they ever produced any oil to my knowledge. Mr. Treadwell had a map with him, showing what he considered to be oil land in that territory, which was used on that trip. The map now shown me is the map Mr. Treadwell had, or a copy of it. The legend in the lower lefthand corner is in [2348] Mr. Treadwell's handwriting. The map has been in my possession since that time, and is in the same condition as it was when I received it. I did not see Mr. Tread-

well have a large map of the oil fields, including 30-23 and 30-24. I don't remember seeing such a map in his office.

The landsmarked "J. B. Treadwell" on the map referred to above in part belonged to the Southern Pacific Company, and I think some of them were Mr. Treadwell's individual property. He bought lands in there in his own name, and gave the company the option to take them at the price he paid for them. There are some tracts the company did not take and they remained his own property. Just which they were I cannot tell. I cannot tell whether the tracts marked J. B. Treadwell on 30-22, 30-21 and 29-21 belonged to the Southern Pacific or not. I didn't pay much attention to any on there because I knew he was acting for the company in there.

At this time the map referred to as having been furnished to the witness by Mr. Treadwell was introduced in evidence and marked Defendant's Exhibit 116.

On November 21, 1902, Mr. Treadwell and I left McKittrick with a team, went out over the hills by way of Crocker Springs to the Chanslor-Canfield Camp, which is now the Santa Fe Camp, at Midway. We looked over that property, stayed there all night, and drove back next morning by way of our section 5 in 32 - 23, and that afternoon went back to Oil City. We did not during any portion [2349] of that trip go into the Elk Hills. The Elk Hills were not then discussed specially, unless the little anticline there on

the railroad would be called "Elk Hills". He called my attention to that anticline as a geological matter, but there was no question as to its being oil land. The oil possibilities of the Elk Hills was not mentioned, and I did not consider them myself as oil territory. The indications at that time were, that from this sharp anticline, there was practically no chance of an extension of the oil field in that direction. The sharp anticline I have mentioned is shown on the map just in evidence. It runs through sections 12 and 13 in 30 - 21, and through 10, 19, 20, 29, 27 and 34 in 30 - 22, and 2, in 31 - 22.

On my trip to the Chanslor & Canfield camp on November 21, 1902, I observed that they were drilling down there on two or three sections, and there was a well being drilled on the south half of section 5 in 32 - 23. The Southern Pacific owned only the north half of that section. I don't remember of any other drilling in there.

From Oil City I went to Los Angeles, looked over the oil fields around Los Angeles, then went to Summerland, and then through the Lompoc and Santa Maria fields to Watsonville, to Sargent — and took in all of the coast fields, and returned to San Francisco on November 28th, where we remained until the 30th, when Mr. Treadwell and I went to Coalinga and went over the territory there, including the company's leases as far north as the old Oil City property; and the next day we went to Alcalde, and

then back to Fresno and San Francisco, arriving in San Francisco on the 3rd. [2350]

I made a brief report of these trips to Mr. Kruttschnitt on December 4, 1902.

At this time a copy of the report mentioned was introduced in evidence and marked Defendant's Exhibit 117, and read into the record as follows:

"Oil Territory. (In pencil:) California C.T.D. (4)

San Francisco Dec. 4th, 1902

J. Kruttschnitt, Esq.,

Asst. to the Prest., City.

Dear Sir:—

Present developments in the San Joaquin Valley indicate clearly that there are at least two distinct series of oil beds. The first and lowest of these follows the mountain slopes that form the eastern, southern and western boundary of the valley. The eastern slope has not yet proved productive, but on the western side we have the Sunset, Midway, McKittrick, Temblor, Antelope, Kreyenhagen, and Coalinga fields belonging to this series.

The Company's lands in the vicinity of Sunset just touch the oil field as now recognized. At Midway they enter it, and from there north we have our share of what there is of this belt. I believe we will have good territory in the vicinity of Sunset and Midway and with that at Coalinga probably enough for all our purposes.

The second series, of which Kern river is at present the only representative, lies out in the valley, and

are basins of nearly horizontal structure. We now know of other indications in the valley which are apparently as [2351] favorable as those of Kern River and I think we will certainly find others when we are better acquainted with the region and its conditions.

So far as can be all of these lands are now reserved from sale.

I propose to take up their examination in a systematic way during the coming year in order to determine as far as can be done from surface indications and geological structure where oil is to be expected in this region, with especial reference to deposits in our own lands. So far as I can judge from the trip I have just made over this territory, this work promises results of greatest value to the Company.

Yours very truly''

I left San Francisco for Houston, Texas, on December 5th, 1902, and did not return to California until March 18, 1903, after which I opened an office, and took active charge of the oil operations of the Southern Pacific Company. I assumed full direction of the work in the field, the drilling of wells, and the handling of all operating matters. Mr. Treadwell was at Oil City at that time, but was assigned to other work. Mr. Harriman sent him to Alaska to look up oil and coal for him up there. At that time Mr. Owen was working under me and had charge of the oil fields. I think I appointed him superintendent of oil operations, oil production. I may have received a few

written reports from him after I opened an office in San Francisco, but Mr. Owen was not a man who made many written reports. He always reported verbally as to his oil operations. I [2352] recognized the letter purporting to be dated March 25, 1913, and appearing in the record in this case in connection with the testimony of Edwin Owen, as a copy of the one received by me from Mr. Owen. There was a map accompanying that letter when I received it, and I have a copy of that map.

I cannot give all of Mr. Owen's movements between the time he came from Oregon to California oil fields in September, 1902, and February 3, 1903. He had a number of things to look up, but in January he was in Nevada looking up some supposed coal deposits, and after that he made a trip down to the Central Oil Company's property near Whittier, and reported on that. The statement contained in the letter referred to accords with my recollection as to the time I began work in the McKittrick fields, and is borne out by copies of correspondence which I have seen.

After I received the letter of March 25, 1903, referred to above, I made a trip with Mr. Owen into the California oil fields, and spent March 30, 31 and April 1st in the Kern River field, and from there went to McKittrick the next day, where we examined the property around the south end of the drilling, the south end and north end of McKittrick—the Company's own work of which I had just taken charge; on the 3rd, Mr. Owen and I studied—I went over the geology and studied it with him, taking the country south of

McKittrick, as far south as the Crocker Springs. On the 4th we drove north of McKittrick to a saddle in the mountains, which Mr. Owen thought might represent axis of the anticline passing in that way. We returned to McKittrick and Kern River that evening. I was nowhere near the Elk Hills on that trip, and have never been in the [2353] Elk Hills. On the next day I returned to San Francisco, where I remained until April 11, 1913, where I was to look after the operation of the oil leases that had been given by the railroad company, to see that the lessees complied with the terms of their leases, and also to look after the payment of the royalty oil to the company. No leases were granted except under my approval.

I employed Mr. Frank M. Anderson as a geologist for the company on March 23, 1903, and I think he came early in April, 1903 to begin work for me. He continued to work under me until, I believe, in 1912. It was my custom to make an inspection trip through the fields each time I came to San Francisco if I was there for any length of time. I went to the oil fields on June 2, 1903. I suppose Mr. Owen went with me on this trip, but cannot say positively. I was in Oil City on the 3rd and 5th of June, at McKittrick on the 6th and 7th, and arrived in San Francisco on the 8th. There was no discussion between Mr. Owen and myself as to the Elk Hills that I remember of. Those trips were largely concerned in the operations. I recognized the paper handed me as a carbon copy of a letter I wrote to Mr. Owen on June 11, 1903.

The copy of the letter just mentioned was introduced in evidence, and marked Defendant's Exhibit 118.

The witness continuing, testified as follows:

I know the company called the Kern Trading & Oil Company. It had just been incorporated at the time I wrote the letter mentioned. Prior to writing that letter I had [2354] consulted Mr. Kruttschnitt. That consultation was in regard to the formation of the K. T. & O. Company, and this letter was written to Mr. Owen in order to get his ideas of what lands should be included — should be taken over by that company. I received replies to that letter from Mr. Owen at two different times: one was in the form of a map showing the lands under those headings in the McKittrick fields, and the other was a similar map of the Coalinga field. There was no letter accompanying the McKittrick map, but there was a letter accompanying the Coalinga map.

I left San Francisco on June 11th and arrived at Houston, Texas, on the 15th, and did not return to San Francisco until October 31st, 1903. I saw Mr. Kruttschnitt on that day.

The first knowledge I had of the formation of the Kern Trading & Oil Company was obtained from the newspaper which I saw in Oil City; I think on the trip I made in May of 1903. I think I had knowledge prior to that time that such a company was in contemplation. The Rio Bravo Oil Company was formed March 2, 1903, and in my talk with Mr. Kruttsch-

nitt upon my return, it was decided that the California operations should be put in a similar company, but had nothing to do with the organization of it, and the first I actually knew of its organization was a notice in the paper.

After the company was organized Mr. Kruttschnitt placed in my hands the examination of all of the lands that were to be turned over to that company. I determined that the lands which we believed to be oil lands, owned by the Southern Pacific Company, and also lands or oil lands which [2355] had been bought by Mr. Treadwell for the Southern Pacific Company, should be turned over to the K. T. & O. Company. That included other lands than those which were actually developed by wells. The company owned everything that we thought at that time would be capable of producing oil commercially; I don't mean capable of producing oil commercially at that time. Most of the land was quite a way from any producing wells, and it was taken up with the idea of furnishing the Company with oil for a long period.

On September 21st, 1903, after I had begun work in connection with the Kern Trading & Oil Company, and after the consultation I had with Mr. Kruttschnitt which I have mentioned, I wrote him fully in the letter or report of that date. The copy of a letter just handed me is a carbon copy of the original of that letter, which was sent to Mr. Kruttschnitt.

When I refer to lands belonging to the Southern Pacific Company as considered valuable for oil purposes, I mean the Southern Pacific Railroad Company. The Southern Pacific Company owned only two or three small plots at McKittrick, and the other lands were Southern Pacific Railroad Company lands.

The letter just mentioned refers to California lands. I had the copy of it from my Houston office. Carbon copies of all reports and letters were sent from one office to the other, but sometimes the letters which came to me, letters to which they were replies, were not copied and sent to the other; part of them have reference simply to the California fields. The Houston office files did not possibly [2356] contain complete correspondence relating to California land matters, but they were practically complete since March, 1903. It was my aim to have them complete.

A copy of the letter above referred to was introduced in evidence, marked Defendant's Exhibit 119, and read into the record as follows:

September 21, 1903.

Mr. J. Kruttschnitt,

Assistant to President, San Francisco.

Dear Sir: The following suggestions are offered for your consideration regarding the operations of the Kern Trading & Oil Company:

Relation to the Southern Pacific Company.

The Kern Trading & Oil Company should be the

medium for handling all the fuel oil business of the Southern Pacific Company until the oil is loaded into the cars, at which time it passes into the hands of the Southern Pacific Company proper.

Property.

In addition to the oil lands held for development and the stocks in California Oil companies owned by the Southern Pacific Company as mentioned in my letter of June 9th last, the Kern Trading & Oil Company should acquire by purchase or lease such lands now belonging to the Southern Pacific Company as we consider valuable for oil purposes. The attached maps show these under three heads: first, oil lands proven or practically proven, colored red; very probable oil lands, colored green; probable oil lands [2357] colored blue. Of the oil value of the first two classes there is very little doubt; the third depends in part upon the continuance of normal dips and conditions, but in addition, it represents untested anticlinals which show good indications of oil. I consider that all of these lands should be under the control of this Company.

The method of acquiring such property by the Rio Bravo Company was by issuing its stock to the Southern Pacific Company to cover valuation.

Stocks.

We would have proper representation in the directories of the various companies in which we are interested. I understand that at present our representa-

tion is confined to Mr. Treadwell and his son-in-law, Mr. Boynton.

Tanks and Pipelines

If the example of the Rio Bravo Oil Company is to be followed, as I think it should, this Company should take over the storage tanks, pipelines, and loading racks of the Southern Pacific Company at Kern River, McKittrick, Olig and Ora. This division of tankage separates your oil in storage from that at fuel stations, or available oil.

Operations.

After careful examination I see no reason to make any radical changes in the present manner of operating the Department, except to suggest that in order to carry out the scheme as it is in Texas, it will be necessary to have all oil received, tested and loaded, under the direction of this company. This is now done under Mr. Burkhalter's direction. I understand from Mr. Burkhalter that he will [2358] be very glad to be relieved of it. In addition to this the printing of a few blanks for which I have prepared copy is all that is necessary to complete the change in operations.

In accordance with your instructions to prepare the necessary circulars to put the Company into operation, I submit the following:

Circular:

“The Kern Trading and Oil Company has acquired the oil properties heretofore belonging to the Southern Pacific Company.

In connection with the development and oper-

ation of these properties the Kern Trading & Oil Company will assume charge of the general fuel oil business of the Southern Pacific Company.

All communications and reports relating to such business should be addressed to the Kern Trading & Oil Company, San Francisco."

Circular:

"Effective this date Mr. J. Owen is appointed Superintendent of the Kern Trading & Oil Company."

If these circulars meet with your approval, please write me and I will issue them at once. The other matters can be adjusted as you have time. Yours truly, D-R Enclosures."

The witness continuing, testified as follows:

The maps referred to in the letter were copies of the maps submitted to me by Mr. Owen showing the lands of [2359] oil possibilities, and they were sent with the letter of September 21st to Mr. Kruttschnitt. I found a map in my Houston files in connection with the carbon of the letter of September 21, 1903, which map I now hold in my hands. This map does not seem to be colored in the same way as exhibit 119. I am not positive by whom it was colored, but it was done either by Mr. Owen or Mr. Redfern, who was my secretary at that time. The lettering on it was done by Mr. Redfern. The lands that are represented on that map, take in the different colors, are the same lands that were on the original map, and with the exception of the variation in colors, it is a copy of the

map that accompanied my letter of September 21, 1903 to Mr. Kruttschnitt.

A copy of the map thus identified was introduced in evidence, and marked Defendant's Exhibit 120.

The witness continuing, testified as follows:

After writing the letter of September 31, 1903, I remained in San Francisco until October 6th of that year, when I went to New York, and on to Houston, where I arrived on the 23rd of October. I returned to San Francisco on November 5, 1903, and the first thing to which my attention was directed was in connection with outside matters. Mr. Treadwell was back from the Alaska trip and had those matters to take up; I also took up the Kern Trading & Oil Company matters.

On November 27th I was instructed to go to Bakersfield and meet Mr. Harriman and Mr. Huntington, and show [2360] them over the Kern River field. I was not in the fields before that during that month.

Mr. B. A. Worthington turned over to me reports of the consumption of oil on the road, of fuel on the road, "Locomotive Performance Sheets" I believe they call them, and on looking over them I saw that there could be such an immense saving by the use of oil in all divisions that I got the statistics together, formulated them in a letter for Mr. Kruttschnitt and sent it to him. The letter just handed me is a carbon copy of the letter to Mr. Knuttschnitt, which was dated November 10th, 1903.

The letter just referred to was introduced in evi-

dence, marked Defendant's Exhibit 121, and read into the record as follows:

(Continued on next page) [2361]

"Copy.

San Francisco, November 10, 1903.

Oil Development, California.

Mr. J. Kruttschnitt,

Assistant to President, City.

Dear Sir:

Believing that it is not only advisable, but absolutely necessary, to proceed at once with the proper development of our oil lands, I submit the following for your consideration:

Fuel Consumption

The report of locomotive fuel consumption for the month of September, 1903, shows that we had on the Pacific System, exclusive of the Sale Lake Division:

278	locomotives	using	coal;
54	"	"	wood;
431	"	"	oil.

The fuel consumption of these locomotives for the month was:

59,647 tons coal, costing.....	\$236,518.83
293,858 bbls. oil, costing.....	115,087.91

<i>Total</i>	\$351,606.74
--------------------	--------------

Economy in use of Oil:

Had all of these locomotives been equipped as oil

burners, the difference in cost of fuel for this month would have been as follows:

Cost of coal, 59,647 tons.....	\$236,518.83
“ “ “ 238,588 bbls.....	103,910.58
	<hr/>
<i>A Saving of</i>	\$133,608.25

[2362]

The Saving by Divisions would have been:

Coast	\$ 54,708.94
Western	8,411.10
San Joaquin	776.88
Los Angeles	7,012.80
Tucson	16,381.60
Sacramento	31,120.45
Lines in Oregon.....	15,196.48
	<hr/>
<i>Total</i>	\$133,608.25

The total amount of oil for the month would have been 532,436 barrels,—about 17,000 barrels per day, or more than 6,000,000 barrels per year.

Oil Supply:

Amount of oil in tanks and under contract is as follows:

Oil in tanks, approximately.....	2,000,000 bbls.
33 & Imperial contract)	
3 years to run).....	7,000,000 “
Associated Oil Co.)	
5 years to run).....	10,000,000 “
	<hr/>
<i>Total</i>	19,000,000 “

Provision would, therefore, seem to be made for about three years' supply of oil for all locomotives, or, if we hold a full year's supply in storage, as I most urgently recommend, there is a supply for only two years, at the end of which time other provisions must be made.

Price of Oil:

Our contracts call for 25 cents per barrel to the Associated and 30 cents to the 33 & Imperial, making an average cost to us for the 17,000,000 barrels of 27 cents. [2363]

If, then, we have ample oil lands and can produce oil for less than we can buy it, is it not to our interest to proceed with development in such a manner that there will be no further reason for purchasing oil from outside parties when present contracts shall have been completed. This cannot be done in a few months, but considerable time will be required to get the development necessary to meet our demands.

Our present production and royalties amount to about 4,000 barrels per day, leaving 12,000 to 13,000 barrels to be provided. While many of our wells may flow from 200 to 300 barrels when first brought in, a conservative estimate of all wells put down would be at the rate of 100 barrels. This means that to get the amount of oil necessary we may have to drill from 100 to 120 wells.

Judging from our experience in the past, it will take from two and a half to three years to get these down, and in operation.

In my opinion, this work should be begun now or not later than the first of the year. If it be left until later, it will have to be done with a rush that will not only add to the expense, but will prevent our giving it the careful oversight which it should have.

While it appears to me this is sufficient reason for proceeding with our work, there is another and, in my opinion, a still stronger one, demanding this development. This development is absolutely necessary to protect our lands from drainage through wells now down and others being drilled along the side lines of our various properties. [2364]

Cost of Production:

The only statistics I have for cost of producing oil from our land cover a period of 21 months beginning with January, 1903. These give for total cost of development and operating the following:

January, 1902, to June, 1902	25.2c	per bbl.
July, 1902, to June, 1903	23.6c	" "
July, 1903, to September, 1903	20.0c	" "

With systematic development and increased output, this cost will be materially lessened, and I am confident that I can bring it down to 16 cents, if not lower.

Oil Property:

The Company has the following oil property which may be classed as 'fully proven':

Kern River	420	acres
McKittrick	1280	''
Coalinga	3840	''
	<hr/>	
Total	5540	''
	<hr/>	

Of the Coalinga land, 1600 acres is now under lease to various parties, with royalties varying from one-eighth to one-fourth.

In addition to the above, we have in the three fields named 14,000 acres of 'very probable' oil land, and as much more that we class as 'possible' oil land.

I believe that a very conservative estimate of actual productive oil land owned by the Company would give us 10,000 acres.

We, therefore, have oil deposits amply sufficient to supply all possible wants of this Company indefinitely. [2365] Part of the oil that we are buying to-day is derived from our own land in this way, and, unless we proceed to protect ourselves and get our proportion of the oil from our property, our neighbors will drain it to a very considerable extent.

Finally, the strongest reason which I present is that with which I started, viz.: the absolute money saving from use of our own oil.

If, by substituting oil for other fuel at present price, you can save \$1,600,000. per year, and if, by producing your own oil, you can further save ten cents per barrel on 6,000,000 barrels, you have an economy of \$2,200,000 per year as against present cost of operations.

This result can be obtained by the expenditure of not exceeding \$750,000, say \$30,000 per month during the next two years. This is a sum much less than the value of the oil we will deliver during the period.

I, therefore, ask that I be permitted to proceed with the development of the property.

D-R

Yours truly,"

The witness continuing, testified as follows:

When I spoke in this letter of the "proper development of our oil lands," I referred to oil lands in which the Southern Pacific Company was interested, including both granted lands and other lands which the Southern Pacific Company owned at that time in the vicinity of McKittrick.

In that letter I gave the acreage of the various [2366] fields: "Kern River 420 acres, McKittrick 12,280 acres, Coalinga 3,840 acres, as 'fully proven' land." I have a memorandum in my dairy taken from the letter showing these particular acreages. I simply abstracted that letter for my own convenience in my dairy.

The letter mentioned above also contains the statement that, "In addition to the above, we have the three fields named, 14,000 acres of 'very probable' oil land, and as much more than we class as "possible' oil land." I made a segregation of the different fields under that head and have it here in my dairy. There is nothing to indicate when I made that segregation except that it is the first thing in my book amongst

the data that I have transferred to this book for my use during the year 1904.

At that time I made a segregation of lands in the McKittrick district, as follows: Proven 1280; probable 7840; possible 11580. My recollection is that this statement represents the amounts that were on the map that Mr. Owen submitted, and this amount—the figures in the letter, the large totals say fourteen thousand straight; they are merely aggregates. The letter I referred to was made up from that memorandum; I just stated in a general way what it was. The acreage may not agree exactly with them; I mean the acreage given of the “very probable” and “possible” were probably different from the figures I have given here.

I had a conference with Mr. Kruttschnitt the day the letter was written, and was instructed to take the [2367] matter up with Mr. Eberlein and ascertain how these matters should be transferred, and I wrote to Mr. Eberlein on the subject on November 13, 1903.

A copy of the letter above referred to was introduced in evidence and marked Defendant's Exhibit 122, and read into the record as follows:

November 11, 1903.

Mr. Charles W. Eberlein,

Acting Land Agent, S. P. R. R. Co., Building.

Dear Sir: In connection with the organization of the Kern Trading & Oil Company Mr. Kruttschnitt desires me to take up with you the matter of transfer to this Company by purchase or lease of such oil

lands as we have selected now belonging to the Southern Pacific Railroad Company.

I hardly know how to arrive at any proper valuation of these lands. Would it not be best to take the land in large bodies at some fixed price, rather than to select simply what we suspect may be oil land? For instance, we might take all lands now owned by the S. P. R. R. Co. in the following townships:

Township 30, south, Range 22,

“ 31, “ “ 22,

“ 31, “ “ 23,

“ 31, “ “ 24,

“ 32, “ “ 23,

and sections 3, 5, 11, and 13, in Township 32, South, Range 24. [2368]

All of Township 19, south, range 15 east,

“ 20, “ “ 14 “

“ 20, “ “ 15 “

“ 21, “ “ 14 “

“ 21, “ “ 15 “

In addition to this there would be the 420 acres of Section 3, Township 29, South, Range 28 East, as it is important that this matter should be put in shape at once, I would be glad to confer with you on the subject at your earliest convenience.

D-R

Yours truly,”

The witness continuing, testified as follows:

Under instructions from Mr. Kruttschnitt I took the matter of turning these lands over to the Kern Trading & Oil Company up with Mr. W. F. Herrin.

I wrote him a letter telling him what Mr. Kruttschnitt desired. Mr. Owen and I decided on a list of lands that were to be transferred to the K. T. & O. Company. That list was made in accordance with the map Mr. Owen had submitted which has already been introduced in evidence.

On November 20th I wrote Mr. Kruttschnitt concerning the land that is to be taken over from the Southern Pacific Company and the Southern Pacific Railroad Company.

The letter above referred to was introduced in evidence, marked Defendant's Exhibit 123, and which reads in part as follows: [2369]

San Francisco, Cal.

November 20, 1903.

Mr. J. Kruttschnitt,

Assistant to the President, City.

Dear Sir: In compliance with your instructions I hand you herewith statement of property to be taken over by the Kern Trading & Oil Company from the Southern Pacific Company and the Southern Pacific Railroad Company, in accordance with suggestions of my letter of September 21, 1903.

Stock and Lands:

The values of the stocks and lands as given are their cost as shown on the Books of the Southern Pacific Company:

Improvements:

The total cost of oil development from its beginning to October 1, 1903, was \$223,528.74; balance

of profits from operations, \$259,990.40, so that total amount charged to development has been more than wiped out by the profits. I have, therefore, estimated improvements at as near present value as possible.

Wells:

In estimating value of the wells I have used cost of equipment only on all the wells drilled prior to January 1, 1903. For those drilled since January 1st, have used actual cost.

Tanks and Pipelines:

Having no knowledge of exact cost of pipelines and loading racks, I have estimated their present value as nearly as possible. The price of tanks is placed at what I understand they cost the Company. [2370]

Lands from S. P. Company.

Prices on all lands are left for your determination:

Of these lands the following have wells on them, and are, therefore, proven:

Kern River,	420 acres,
Coalinga,	1,800 “

The following lands adjoining the above are also proven by these wells:

Coalinga,	1,440 acres
-----------	-------------

We consider the following quite certain to produce oil:

McKittrick,	960 acres,
Midway,	360 “
Coalinga,	600 “

The remainder of the land included in this list, 29,780 acres, is unprospected, and is, therefore, sim-

ply probable oil land, which, from our investigations, we believe will prove valuable.

I believe that this gives you all of the information asked for in this connection.

D-R

Yours very truly,"

(Accompanying this letter, and referred to in it, was a statement or list of the lands to be included in the transfer.)

The witness continuing, testified as follows:

I remained in San Francisco until November 27, 1903, when I went to Bakersfield, to Oil City, to meet Mr. E. H. Harriman, Mr. Wilcox and Mr. H. E. Huntington. I think Mr. Wilcox was one of the directors at that time. [2371] I showed them over the Kern River oil field. We went through our own section 3 and showed them the way we were managing the work there, and then we went up through thirty-three, and the Imperial, and on on over some of the Associated Oil Company's property. I don't remember all of the properties we went over, but it was just a general view of the field that I gave them. I was not in McKittrick with those men at that time. There was two discussions concerning that trip concerning the Elk Hills. I didn't know at that time that an application had been made for patent to certain lands in township 30-23 by Mr. Eberlein. I have not had any conversation with Mr. Eberlein, Mr. Stone, or anyone connected with the Land Department of the company concerning the selection and listing of those lands. No one in my office and under my direction

made any such suggestion to Mr. Eberlein or Mr. Stone to my knowledge. I did not give any such directions to anyone, had had no communication with Mr. Kruttschnitt or other officials of the Southern Pacific, the Southern Pacific Railroad Company, the Kern Trading & Oil Company, the Associated Oil Company, by letter or otherwise, with reference to selecting lands in the Elk Hills. The lands in township 30-23, in the Elk Hills, were not applied for by Mr. Eberlein as the result of any recommendation or suggestion made by me to anybody.

The lands in township 30-23 had never entered into my mind as oil land at all. The conditions around McKittrick all seem to me to preclude the possibility of oil occurring that far away from the outcrop.
[2372]

I was in San Francisco until the 12th of December, 1903, when I left for Houston, where I remained until January 20, 1904, when I returned to San Francisco accompanied by my family. We came over the regular route from Houston to San Francisco, did not pass through Bakersfield or the Kern River field. I did not, during 1903 or 1904, in coming from Houston to San Francisco, pass through Bakersfield. I did pass through there on trips in 1901, and possibly in the earlier trips of 1902.

I have met Thomas J. Griffin. He did not accompany me from Houston to San Francisco on the trip of January 20, 1904.

On February 1, 1904, I wrote a letter to W. F.

Herrin, chief counsel for the Southern Pacific Company.

A copy of the letter above referred to was introduced in evidence, marked Defendant's Exhibit 124, and read into the record as follows:

February 1, 1904.

Kern Trading & Oil Company:

Mr. William F. Herrin,
Chief Counsel, City.

Dear Sir: Mr. Kruttschnitt instructs me to proceed with the matter of having the Kern Trading & Oil Company take charge of the oil business and requested me to consult with you as to the proper method for doing this and to arrange with you for drawing up the necessary papers ready for his signature. [2373]

I would be glad to consult with you at your convenience on this matter in order that it may be gotten into shape for him as soon as possible.

D-R Yours truly,"

The witness continuing, testified as follows:

On February 2, 1904, I wrote another letter to W. F. Herrin.

A copy of the letter above referred to was introduced in evidence, marked Defendant's Exhibit 125, and read into the record as follows:

February 2, 1904.

Mr. W. F. Herrin,
Chief Counsel, Building.

Dear Sir: I would suggest, in relation to the trans-

fer of the oil lands owned by the Southern Pacific Railroad Company to the Kern Trading & Oil Company, that the fairest method for both parties would be in the shape of a lease.

None of the lands in the McKittrick, Midway, and Sunset districts, and only a part of those in the Coalinga district, have been actually proven by wells, and, while we believe that there is a strong probability that all of the lands here mentioned will produce oil, it will require drilling to make this certain.

I doubt if the Railroad Company would care to dispose of these lands at the price of ordinary lands, even if it were proper under the circumstances to ask them to do so. If we can take them over in the shape of a lease so that they will be under our control, the Railroad Company will receive its proportion of any oil produced. [2374]

I would suggest that a royalty of one-tenth in the McKittrick, Midway, and Sunset districts would be proper, and the same royalty would also properly apply to all of the Coalinga district except Sec. 31, T. 19 S., R. 15 E., Secs 1. 13, 23 and 25, T. 20 S., R. 14 E., and Sec. 7, T. 20 S., R. 15 E.

As leases already exist on the sections enumerated above, we would have to take over the leased portions of these sections in accordance with such contracts, but I think the royalty on the unleased portions of the sections should be enough lower to permit the K. T. & O. Co. to handle the matter with some profit to itself, as compensation for attending to the business of the R. R. Co. Up to this time we have done the

work without any charge to the Southern Pacific Railroad Company.

I understand that the four-hundred-twenty-acre tract in section 3, T. 29 S., R. 28 E., Kern River field, now being operated by the Southern Pacific Company belongs to the Southern Pacific Railroad Company, and that there has never been any agreement between the companies in regard to its operation, now has the Southern Pacific Company paid the Railroad Company any royalty on oil produced. All the other lands in that region were sold at a very low figure. Whether to take this under lease or to purchase it outright is a matter for discussion.

D-R Yours very truly,"

The witness continuing, testified as follows:

On February 12, 1904, I wrote another letter to Mr. W. F. Herrin. [2375]

The letter above referred to was introduced in evidence, marked Defendant's Exhibit 126 and read into the record as follows:

"February 12, 1904.

Mr. Wm. F. Herrin,
Chief Counsel, Building.

Dear Sir: Mr. Kruttschnitt is after me in regard to matters submitted to you February 1st and 2nd in connection with the Kern Trading & Oil Company, and asks that I get the papers to him as soon as possible.

Will you please take this up at your early con-

venience in order that I may be able to comply with his request?

D-R

Yours very truly,

The witness continuing, testified as follows:

On February 19, 1914, I wrote Mr. Eberlein as follows: "I have just read your letter of February 19th to Mr. Kruttschnitt in regard to the lands to be taken and the statement as there made covers all the land that I think it necessary to take in this connection at this time."

This letter was introduced in evidence and marked Defendant's Exhibit 127.

The witness continuing, testified as follows:

I don't know where the letter of February 29th to Mr. Kruttschnitt, mentioned in my letter of that date to Mr. Eberlein, is at this time. I will say in reference to the lands referred to in that letter that the only lists I know [2376] of are the ones transmitted to Mr. Kruttschnitt.

On March 11, 1904, I received a letter from Mr. Wm. F. Herrin, dated March 10, 1904.

The letter above referred to was introduced in evidence, marked Defendant's Exhibit 128, and read into the record as follows:

William F. Herrin, Chief Counsel,

San Francisco, Cal., March 10, 1904.

Subject: TRANSFER OF OIL PROPERTIES TO
KERN TRADING & OIL CO.

Prof. E. T. Dumble,

Consulting Geologist.

Dear Sir:

Referring to your letter of February 12th ult., I have prepared and herewith enclose drafts of the following instruments, viz:

Deed—Southern Pacific Company to Kern Trading & Oil Company.

Bill of Sale—Southern Pacific Company to Kern Trading & Oil Company.

Oil Lease—S. R. R. Co, to Kern Trading & Oil Company.

These will operate to vest the described premises, both real and personal, in the Kern Trading and Oil Company.

The stocks mentioned by you, in the Buena Vista Petroleum Company, Union Land & Oil Company, and Reward Oil Company, desired to be transferred to the Kern Trading & Oil Company, will be transferred to the Kern Trading & Oil Company, will be transferred by endorsement and delivery of [2377] the stock, and transfer upon the books of the respective companies.

With reference to the operation of the Reward Oil Company's property, I think it could be better worked, under the restrictions of the contract of May 22nd, 1903, between the Associated Oil Company and the Kern Trading & Oil Company, and the Southern Pacific Company, if a purchase of the property of the Reward Oil Company were made by the Kern Trading & Oil Company.

I shall be glad if you will examine each of the

documents enclosed, and suggest any changes that may appear necessary, so that they can be submitted to Mr. Krutchnitt at an early day after his return.

Yours truly,

Wm. F. Herrin

(Rubber stamp)

(in pencil)

The witness identified the carbon copy of the letter written by him on March 11, 1904, and addressed to Wm. F. Herrin, which was marked Defendant's Exhibit #129, and read into the record as follows:

Mr. Wm. F. Herrin,
Chief Counsel, City.

Dear Sir: I have examined the papers send down in the matter of the Kern Trading & Oil Company, and I know of no change to be made except in the bill of sale which should be made to include the following items which have been constructed since the original list was made: [2378]

- 1, 55,000 bbl. tank at Oil City, making 8 in all,
Pipeline between Coalinga and Ora,
Pump station at Coalinga,
- 1, 10,000 bbl. tank at Coalinga.

D-R

Yours truly,

The witness identified a carbon copy of a letter written by him on March 15, 1904, to Mr. Kruttschnitt, which was introduced in evidence, marked Defendant's Exhibit 130, and read into the record as follows:

Mr. J. Kruttschnitt,
Assistant to President, City.

Dear Sir:

Enclosed I hand you papers prepared by the Law Department for transfers to the Kern Trading & Oil Company, as follows:

Deed,—Southern Pacific Co. to Kern Trading & Oil Co.

Bill of Sale,—Southern Pacific Co. to Kern Trading and Oil Co.

Oil Lease, S. P. R. R. Co. to Kern Trading & Oil Co.

D-R Yours very truly,"

The witness identified a letter written to him by Mr. Kruttschnitt, on March 17, 1904, which was introduced in evidence, marked Defendant's Exhibit 131, and read into the record as follows:

Mr. E. T. Dumble,
Consulting Geologist,
San Francisco, Cal.

Dear Sir: Referring to your communication of March 15th on [2379] the subject of transfer of properties to the Kern Trading & Oil Company, would ask that you kindly have a blueprint descriptive of the property in question attached to each of the documents herewith returned.

I would ask that in future a descriptive blueprint

be attached to each copy of deed, agreement, etc., where it is possible to do so.

Yours truly,

(In pencil) J. Kruttschnitt

G L K

The witness identified a letter written by him to Mr. Kruttschnitt on March 17, 1904, which was introduced in evidence and marked Defendant's Exhibit 132, and read into the record as follows:

Mr. J. Kruttschnitt,

Asst. to Pres., City.

Dear Sir: I have arranged with Mr. Klink for the printing of the necessary blanks for the Kern Trading & Oil Co.

In the Rio Bravo Company Mr. Segar is named as Secretary, and to carry out the scheme here it would be necessary to put Mr. Klink's name in as secretary, but, if you prefer, the same result may be reached by naming him Auditor of the Company. As you will see from the attached blank, the names of the officers are given on the letterhead, and I thought I would call your attention to it before these were printed in order that this change may be made in you think proper to do so.

D-R

Yours truly,"

[2380]

The witness identified a letter written by him on March 21, 1904, to G. P. Klink, Auditor of the Southern Pacific Company, which was introduced in evidence, marked Defendant's Exhibit 133, and read into the record as follows:

Mr. G. T. Klink,
Auditor, Building.

Dear Sir:

Mr. Kruttschnitt writes me under date of March 18th to put your name upon the letterhead of the Kern Trading & Oil Company as Auditor. Will you please have this inserted when the proof is brought in?

D-R

Yours truly,"

The witness continuing, testified as follows:

The only maps I remember Mr. Treadwell having were maps of the recognized oil fields, such as those made by Barlow & Hill. He had a map of the Kern River and probably of McKittrick, of their make on the walls, and he also had copies of a map which you will find included in Watts' report showing the stratification at Summerland as brought out by the wells that he drilled there on the S. P. wharf, as it is called.

By "Watts' report", as mentioned above, I mean the one of 1889 or 1900. It has an engraving in it of the Summerland wharf. Mr. Treadwell was busy at the time I was there in making a similar sketch or geological section of the maps at Kern River,—of the wells at Kern River. [2381] Those, I mean, on section 3. I had him make me copies of those sections as he had them at that time and somewhat later. There was no other map that I remember of in his office, and if there had been a map that would show anything in regard to the oil field, I would certainly have found it out.

The witness here identified a copy of a letter written by him on March 21, 1904, addressed to Mr. J. Kruttschnitt, which was introduced in evidence, marked Defendant's Exhibit 134, and read into the record as follows:

Mr. J. Kruttschnitt,

Assistant to the President, City.

Dear Sir: I am arranging to begin operations according to plans outlined, on April 1st, and suggest that Mr. Stevenson and Mr. Burkhalter be advised that after that date the receiving, handling, and loading of Company oil at Oil City, McKittrick, Olig and Ora, will be under my charge.

I will ascertain from them just what reports they used to enable them to handle their portion of the business satisfactorily and will arrange to give them to them promptly.

D-R

Yours truly,

The witness continuing, testified as follows:

The Mr. Stevenson mentioned in that letter was either the purchasing agent or the chief clerk of the purchasing agent of the Southern Pacific Company at that time, [2382] and Mr. D. Burkhalter was superintendent of that company at Bakersfield.

The witness here identified a copy of a letter written by him on March 23, 1904, to J. Kruttschnitt, which was introduced in evidence, marked Defendant's Exhibit 135, and read into the record as follows:

Mr. J. Kruttschnitt,

Assistant to the President, City.

Dear Sir: As I expect to leave Friday night, would it not be advisable to have a meeting of the Kern Trading & Oil Company, in order that matters might be finally arranged in accordance with the plans we have outlined?

D-R

Yours truly,

The witness continuing, testified as follows:

On February 29th, 1904, I made an inspection trip to the oil fields and returned March 6, 1904. I made the regular rounds of the oil fields for the purpose of getting at the distribution of accounts that were to be put in in connection with the oil work. I obtained dates of this trip from a book I now hold in my hand which was used for my field work and memorandums in the field from June, 1903, to December, 1905. Mr. Owen usually accompanied me on such trips. I have no independent recollection at this time who was with me, or whether Mr. Owen was with me, outside of the general thought. Thomas J. Griffin did not accompany me during that trip or any part of it.

After returning to San Francisco from that trip I [2383] remained there until March 25, 1904, when I went to Houston, and did not return to San Francisco until April 25th of that year. I then remained in San Francisco until May 5, 1904. On April 13, 1904, I was in Houston, Texas. On April 14, 1904, I received a telegram at Houston from my office. This telegram was addressed to me, and my name was signed to it by someone in my San Francisco office, which was the practice in that office even though I was not there when such telegrams were signed.

The telegram referred to was introduced in evidence, marked Defendant's Exhibit 136, and read into the record as follows:

E T D

Mr. Kruttschnitt asks reply to letter of March seventeenth on subject of transfer of properties to the Kern Trading and Oil Co.

The witness then identified a carbon copy of a telegram dated April 14, 1904, as a copy of his reply to the telegram mentioned above which was introduced in evidence, marked Defendant's Exhibit 137, and read into the record as follows:

Transfer Kern Trading & Oil Company property: Have been unable to get all of blue prints asked for in McKruttschnitt's letter of March seventeenth. After getting part of them the Law Department sent new forms of deed which necessitate further changes. Will answer as soon as possible. [2384]

The witness continuing, testified as follows:

On April 29, 1904, I was in San Francisco, and on that date I dictated and signed a letter and sent it to Mr. Kruttschnitt, and recognized the paper handed me as a copy of that letter.

A carbon copy of this letter was sent to Charles H. Markham, who, as I recollect, had just been appointed General Manager of the Pacific System, including the Southern Pacific Company. As to whether he was at that time President of the Kern Trading & Oil Company, I cannot say whether the transfer had then been made or not.

Thereupon the letter just referred to was introduced in evidence, marked Defendant's Exhibit 138, and read into the record as follows:

Mr. J. Kruttschnitt,
Director of M. & O., City.

Dear Sir: I hand you herewith triplicate copies of oil lease between the S. P. R. R. Co. to Kern Trading & Oil Co., bill of sale, Southern Pacific Co. to Kern Trading & Oil Co., deed from Southern Pacific Company to Kern Trading & Oil Co., assignment of lease, Southern Pacific Co. to Kern Trading & Oil Co., which have the forms approved by the attorneys, and accompanied by blueprints showing location of the property transferred.

The delay in this matter has been caused by changes in forms of the instruments. There is still lacking transfer of the Summerland property for which I have not been able to get the requisite data for plot showing the location of the [2385] property. Neither Mr. Ryan or Mr. Treadwell can furnish anything definite concerning this, and I now have the matter up with the attorneys in Santa Barbara from whom I hope to get the data.

D-R Yours very truly,

The witness then identified a copy of a letter written by him to Mr. C. H. Markham on May 3, 1904, which was introduced in evidence and marked Defendant's Exhibit 139, and reads as follows:

Mr. C. H. Markham,

General Manager, Southern Pacific Co., City.

Dear Sir:

The preliminary organization of the Kern Trading & Oil Company was had sometime ago, but in view of the fact that the President, Mr. Kruttschnitt and one of the Directors, Mr. W. A. Worthington, are leaving for Chicago, it would be well to have a meeting before they get away, in order to re-organize the Company under the lines laid down by Mr. Kruttschnitt.

I call your attention to this in order that it may be taken up at your convenience.

D-R

Yours truly,

The witness then identified a copy of a letter written by him to C. H. Markham on May 13, 1904, which was introduced in evidence, marked Defendant's Exhibit 140, and read into the record as follows:

[2386]

Mr. C. H. Markham,

General Manager, S. P. Co., City.

Dear Sir:

The information asked for by Mr. Kruttschnitt in regard to the Kern Trading & Oil Company as nearly as I can give it to you is as follows:

Names of Directors and number of qualifying (in ink) shares held by each:

C. H. Markham,	10 shares
J. E. Foulds,	10 shares
J. L. Willcut,	10 shares
J. H. Wallace,	10 shares
E. T. Dumble,	10 shares

Number of shares held by S. P. Co. and number of certificates: (To be got from Mr. Willcut)

List of Property Conveyed:

1. Real Estate, Summerland,	\$7,000
2. " " McKittrick,	320,000
3. Foltz lease,	5,000
4. Improvements Kern, McKittrick, Coalin- ga, Summerland, and Casmalia,	126,000
5. Tanks, pipelines, and loading racks,	244,000
Total,	<hr/> 702,000

D-R

Yours truly,

The witness identified a copy of a letter written by him on May 30, 1904, to C. H. Markham, which was introduced in evidence, marked Defendant's Exhibit 141, and read into the record as follows:

Mr. C. H. Markham,

President, San Francisco, Cal.

Dear Sir:

Answering your letter of May 21st, in regard to Kern Trading & Oil Company matters: [2387]

Mr. Kruttschnitt accepted the letter as written and instructed me to arrange for the transfers of the property and all other matters in accordance therewith. This has all been done, and the transfer papers are with your or himself.

In regard to the representation in the Directory of the various companies, I am not fully informed,

but think that Mr. Willcut was put in, in Mr. Treadwell's place in one or two of the companies.

Everything else has been settled.

Yours truly,

The witness identified a letter written by J. L. Willcut, Secretary of the Kern Trading & Oil Company to him on May 20, 1904, which was introduced in evidence, marked Defendant's Exhibit 142, and read into the record as follows:

Prof. E. T. Dumble,

28 Converse Building, Houston, Tex.

Dear Sir: This will advise you that you were this day elected Vice-President of the Kern Trading & Oil Company, vice J. E. Foulds, resigned.

As I understand that for some time you have, under instructions, been acting practically in such capacity, I deem it but proper that you should at once be officially advised of your election.

Yours very truly,

(Signed) J. L. Willcut

Secretary. [2388]

The witness identified a copy of a letter written to him by C. H. Markham on May 31, 1904, which was introduced in evidence, marked Defendant's Exhibit 143, and read into the record as follows:

Southern Pacific Company

C. H. Markham, San Francisco, Cal., May 31, 1904
Genl. Mgr.

Mr. E. T. Dumble,

Geologist, San Francisco, Cal.

Dear Sir:

Referring to conversation with Mr. Kruttschnitt when he was last here, and to your letter of May 13th, beg to say that I am just in receipt of a letter from him approving plan for transferring certain property to the Kern Trading & Oil Company in exchange for stock certificates Will you kindly push the matter to a conclusion.

Yours truly,

C. H. Markham.

The witness recognized the copy of a letter written by him to C. H. Markham on June 2, 1904, which was introduced in evidence, marked Defendant's Exhibit 144, and read into the record as follows:

Mr. C. H. Markham,

General Manager,

San Francisco, Cal.

Dear Sir: Your letter of May 31st, in regard to trans-[2389]ferring properties to the Kern Trading & Oil Company in exchange for certificates :

Please be advised that deeds to all the property accompanied by blue prints showing locations, are in Mr. Kruttschnitt's hands, except that for Summerland properties, which were sent you on May 25th.

The papers are complete with the exception of the insertion of the consideration for which the deeds are made, and their completion, I suppose is a matter for the Secretary and President of the Company.

Yours truly,

The witness continuing, testified as follows:

On May 5, 1904, I went from San Francisco to Astoria, to examine the Deep River oil field. I don't know whether it is in Washington or Oregon. It is at the mouth of the river, anyway. I returned to San Francisco on the 11th of May.

The Kern Trading & Oil Company actually began operations in the field on the 1st of April, 1904. It took entire charge of the production and handling of oil of the company's property and the handling of the oil that had been purchased for the company's use until the time it was loaded on board the cars, in strict accordance with the program laid out in the beginning in the letter to Mr. Kruttschnitt. It began operations prior to the time the lease was executed.

By way of explanation more in detail as to how the business was carried on in the field from the time they [2390] started in with the work, I will say the organization was Mr. Owen as — I think first he was appointed acting superintendent — who had charge of all the production in all of the fields; then at the Kern River and McKittrick we had field foremen in charge of each lease. We were drilling wells both at Kern River and McKittrick and producing oil there. The company through their purchasing agent — the Southern Pacific Company, make that — the Southern Pacific Company through their purchasing agent was buying oil, and we attended to the receiving and testing of this oil for them.

By the use of the word "we", I mean the Kern Trading & Oil Company and its organization. We

took over all the men who had formerly been employed by the Southern Pacific Company in the same work. They were paid on the Kern Trading & Oil Company's pay-roll. The Kern Trading & Oil Company had letterheads at that time. They were letterheads with the name of the Company and the name of the President, Vice-President, Auditor, and probably the Treasurer. I don't know just what the fourth party was. The letterhead upon which Defendant's Exhibit 142 is written was not the work of a letterhead the company had; this was Mr. Willcut's personal letterhead. The Kern Trading & Oil Company letterhead was printed, and entirely different from Mr. Willcut's letterhead.

There was no effort made at that time to keep the operations of the Kern Trading & Oil Company a secret, and they were not kept secret.

I returned to San Francisco on May 11, 1904, went to Santa Barbara on the 12th, and back to San Fran-[2391]cisco on the 13th, and left the next day for Houston, Texas, arriving there on May 17th. I remained in Houston until June 26th, reaching San Francisco on the 30th. I made a trip to the oil fields on July 6th. Was in Oil City or the Kern field on the 7th, Coalinga on the 8th and 9th, McKittrick on the 10th and 11th, and on the 12th I met Mr. C. H. Markham at Bakersfield, and showed him over the Oil City and McKittrick fields. At McKittrick we went over the property that we were operating there, showing him the fields generally — the producing fields. On the 13th we went to Coalinga and returned

to San Francisco that evening. I remained in San Francisco until July 27th. On July 22nd, 1904, I addressed a letter to W. F. Herrin.

The letter just referred to was introduced in evidence, marked Defendant's Exhibit 145, and read into the record as follows:

Mr. W. F. Herrin,

Chief Counsel, Bldg.

Dear Sir: I return herewith Bill of Sale of the Southern Pacific Company to the Kern Trading & Oil Company for the improvements in the oil fields. I find that there are only seven 55,000 barrel tanks at Kern River, instead of eight. When the list was submitted Mr. Burkhalter told me two were to be erected there, but it seems only one of them was put up.

A typographical error occurs on second page, which should read: [2392]

"6: Pipeline between Coalinga and Ora, and pumping station on Section 7, Coalinga oil field."

Since writing this the two earthen reservoirs have been practically completed and under date of July 21st Mr. Markham states that these should be transferred to the Kern Trading & Oil Company. One of these is at Kern River; the other on Section 7 of Coalinga oil field.

I asked Mr. Markham whether or not the transfer should be included in this instrument, and he instructs me to leave this matter to you.

Yours very truly,

The witness identified a copy of a letter written by him on July 26, 1904, to C. H. Markham, which was introduced in evidence, marked Defendant's Exhibit 146, and read into the record as follows:

Mr. C. H. Markham,

Vice-Pres. and Genl. Mgr., City.

Dear Sir: In compliance with your favor of July 12th, I herewith return to you the following papers with my approval as to description of property listed:

1. Deed from the Southern Pacific Company to the Kern Trading & Oil Company covering the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 19, Township 30 S., Range 22 E., M.D.M., forty acres, also the other property as described therein
2. Deed from the Southern Pacific Company to the Kern Trading & Oil Company of the Foltz lease covering offices and quarters, etc. etc., therein described.
3. Assignment by the Southern Pacific Company to the Kern Trading & Oil Company of the Foltz lease covering land in the McKittrick district.
4. Ten-year lease by the Southern Pacific Railroad Company to the Kern Trading & Oil Company covering [2393] land in Kern and other districts mentioned.

Yours very truly,

D-R

(In pencil) E T D

Thereupon, the witness continuing, testified as follows:

The statement, "Description of property correct

E. T. Dumble'', appearing on page 7 of Plaintiff's Exhibit YY, is in my handwriting, and I recognize the signature of C. H. Markham on the same page, as being his signature, as near as I remember it. The signature of William F. Herrin is correct.

I recognize this exhibit as being one of the papers I received from the Law Department referred to in the correspondence. I checked the description of the property contained in that exhibit with a copy of the list that I submitted to put into the lease, and they agreed. I believe this to be the paper which I approved. I obtained the descriptions of the lands contained in the lease from the maps submitted by Mr. Owen in response to my letter of July 11, 1903, heretofore referred to in my testimony. I did not have any consultation or conference with Mr. Eberlein, or with anyone in his office, concerning the preparation and the description of the lands in this lease.

I recognize the paper handed me as a letter written by me to Mr. C. H. Markham on September 19, 1904. The correspondence mentioned in the second paragraph of that letter are the same letters that have just gone into the files. Mr. Markham is still alive, and is in Chicago [2394] I suppose.

The letter of September 19, 1904, just referred to, was introduced in evidence, marked Defendant's Exhibit 147, and read into the record as follows:

File 4005

Mr. C. H. Markham, September 19, 1904.
V.P. & G.M., City.

Dear Sir: Replying to yours of September 15th and

returning letter from Mr. Eberlein of September 10th:

The lease in question was drawn up by Mr. Herin's office and I submit herewith copies of correspondence regarding same.

As regards ownership of lands by the Southern Pacific Railroad Co. would say that all the lands included in this lease are shown as belonging to the Southern Pacific Railroad Co. on maps furnished me by the Land Department and now in my possession.

My understanding of the lease does not bear out the statements made by Mr. Eberlein in regard to its effect upon royalties of existing leases.

Yours very truly,

D-R

(In pencil) E. T. Dumble.

Enclosure.

The witness continuing, testified as follows:

I have been unable to find the letter of September 15th mentioned in the foregoing letter, and I returned Mr. Eberlein's letter of September 10th.

Plaintiff's Exhibit KK, purporting to be a letter written by C. H. Markham to Charles W. Eberlein is, in a [2395] general way, as I remember, the letter I received from Mr. Markham with his letter of September 15th, 1904. Whether it is identical with it or not I cannot say after this length of time. I don't recollect the portion of the letter which said, "In addition to this there is a very urgent reason for delaying the execution of these papers. We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which

we have represented as non-mineral in character. Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted." That statement is not in accord with the facts of the lease, and the lands that we included in the lease were all patented lands, and there were, so far as I know, no unpatented lands among them or interspersed with them in any way.

Since I made no reference to that portion of Mr. Eberlein's letter in my letter of September 19, 1904, introduced in evidence as Defendant's Exhibit 147 above referred to, I doubt as to its having been there; I don't think I could have written a letter with the facts before me as they were, based on such a letter as that, without especially replying to that point. The maps mentioned in my letter of September 19th, Exhibit 147, were the maps furnished me by Mr. Owen in 1902, being the first map introduced in connection [2396] with my evidence, and similar maps of Coalinga field which were given him at the same time.

After writing the letter of September 19th to Mr. Markham, I received maps from Mr. Eberlein. They were sent to me with his letter of October 8th. Accompanying that letter I received a map similar to Plaintiff's Exhibit UU, which is correct and repre-

sents the lands in the lease, and a copy of the one I received. Prior to receiving this letter of October 8, 1904, I had no information that I know of concerning the listing and selection of the lands in 30 - 23 involved in this suit; I have no recollection of ever having heard of it before this time. I didn't consider the lands embraced in that list were within the oil territory. I did not believe the oil territory extended outside of the lands selected from the enclosure of the Kern Trading & Oil Company lease. That lease includes section 31 in township 30 - 23. I included it because Mr. Owen had put it on his map as possible oil territory because of an anticline that ran through it. The anticline runs through the southwest part of it, is my recollection.

After my letter of September 19th in reply to Mr. Markham's letter of September 15th, I had some further communication concerning the execution of the Kern Trading & Oil Company lease. I think it was concerning the small matters that Mr. Eberlein pointed out, such as the town plat of McKittrick; two or three small tracts that were not owned by the S. P. R. R. Company were, I believe eliminated from the first list at the time it was put in, and the new list was submitted, I suppose — but really [2397] I am not certain about that.

I wrote the letter of December 7, 1904, addressed to W. H. Bancroft, which was introduced in evidence in this case as plaintiff's Exhibit SS. In regard to the statement in that letter that, "I have had a conversation with Mr. Eberlein and it seems for reasons

of policy regarding such unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present'', I will say I have very little recollection of it. It made little or no impression on me at the time. The only thing that is with me is that I talked the matter over with him, and simply in deference to his desire to ease the matter along, I wrote the letter to Mr. Bancroft. I personally couldn't see how our lease would interfere with his applications, but he thought so, and I deferred to his wishes.

The Kern Trading & Oil Company was operating just as if the lease had been signed. It was in possession of all the lands named in that lease; were drilling wells where they wanted to, and receiving royalty oil from the other lessees, and turning it over to the Southern Pacific Company. They had been doing this since the 1st of April, 1904. The lease was to the operating end of it, a formal matter for the officials of the road to arrange. The execution or non-execution of that lease by him at that particular time would not make any difference in the operation of the new field. At the time I wrote that letter to Mr. Bancroft I did not believe that the execution or non-execution of that lease by him would have any effect one way or the other upon [2398] the operations of the Kern Trading & Oil Company in the field; that had everything to do with my acceding to Mr. Eberlein's request to write that letter.

As to whether at a later time, after the fire of 1906, any other lease to the Kern Trading & Oil Company

was under consideration for the same or similar lands I will say that there was an inquiry made for that lease, the original lease, the one of 1904. I supposed it had been executed and was in Mr. Calvin's hands, who was then General Manager of the Southern Pacific Company, but which was not found. I made an effort to locate the lease, looked through my own files for even a copy of it, which I could not find, and wrote to Mr. Calvin for it, and he looked through his files, and wrote me in regard to it.

The witness here identified a letter written by him to C. W. Eberlein on March 15, 1907, which was offered in evidence, marked Defendant's Exhibit 148, and read into the record as follows:

Houston, Texas, March 15, 1907.

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

Mr. Seger sends me a copy of your letter to him of February 6th, 1907, denying any knowledge or information of any lease, agreement or understanding, made or entered into with the Kern Trading & Oil Co. for production [2399] of oil on the lands of the S. P. R. R. Co.

Let me call your attention to the following in order to refresh your memory.

Nov. 11, 1903, I wrote you that Mr. Kruttschnitt instructed me to take up with you the transfer to the Kern Trading & Oil Company, by purchase or lease, of certain oil lands belonging to the S. P. R. R. Com-

pany, giving you at the same time list of lands desired and asking for a personal conference.

Nov. 20, 1903, I submitted to Mr. Kruttschnitt full report covering this matter.

Feb. 1, 1904, Mr. Kruttschnitt instructed me to proceed with the matter in accordance with the terms already agreed upon and I submitted it to Mr. Herrin that he might prepare proper papers.

Feb. 19, you wrote Mr. Kruttschnitt suggesting that there might be other lands than those originally enumerated which it might be desirable for us to take over. I wrote you in reply the same date "the statement as made covers all the lands that I think it necessary to take in this connection at this time."

March 10, Mr. Herrin returned draft of instruments, including "Oil Lease S. P. R. R. Co. to K. T. & O. Co." covering these lands, which I transmitted to Mr. Kruttschnitt next day. A few changes were found necessary and the papers were finally transmitted to Mr. Kruttschnitt with blueprints showing location of lands, April 29.

Under date of March 31, 1904, Mr. Markham writes me that he is in receipt of letter from Mr. Kruttschnitt [2400] approving plan of transferring the property and asking me to push matters to a conclusion.

The papers again passed through the attorneys' office and finally on July 26th I transmitted to Mr. Markham with my approval as to description of property listed:

4: 10 Year Lease of S. P. R. R. Co. to K. T. & O.
Co. Covering Land in Kern & Other Dis-
tricts Mentioned.

Sept. 10, 1904, you wrote Mr. Markham regarding the proposed lease that there was an error in some of the lands listed and calling his attention to your understanding that the lease as written might reduce the royalties to the S. P. Co. on lands already leased. I replied under date of the 19th that the terms of lease did not bear this out or have any effect on existing leases which were taken over subject to original terms, and Mr. Markham wrote you on same date "I see no objection to going ahead with the original program of assigning to the Kern Trading & Oil Co. all of oil leases now outstanding."

The matter of differences in the land I took up with you personally and under date of October 8th, 1904, you sent me corrected maps showing exactly what lands were to be covered by the lease as drawn.

Early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed. On December 7, 1904, I wrote Mr. Bancroft explaining this and suggesting that the lease [2401] be held up temporarily, the papers having been approved by all concerned and being in the hands of the Management, I considered that I had nothing further to do with them.

In the meantime, however, under direct instructions from Mr. Kruttschnitt and Mr. Markham, the Kern Trading & Oil Co. on April 1st, 1904, took charge of the entire oil situation, including lands covered by this lease, and has operated under the terms of the understanding which was to have been put in legal form long ago.

Copies of most of this correspondence are in my files and if you care to see them, I will be glad to let you have them.

Yours truly,

D-G

E. T. Dumble''

The witness identified a letter written to him by C. W. Eberlein on March 21, 1907, which was offered in evidence, marked Defendant's Exhibit 149, and read into the record as follows:

Charles W. Eberlein,
Acting Land Agent.

San Francisco, Cal. March 21, 1907.

Professor E. T. Dumble,
Consulting Geologist,
Southern Pacific Company.
Building.

Dear Sir:

I am in receipt of your letter of March 15, 1907, relative to operations of the Kern Trading & Oil Company on [2402] land of the Southern Pacific Railroad Company, and I note what you state as to the purport of certain correspondence relating to this matter and which occurred before the fire.

All of our correspondence and records were des-

troyed, and as you have saved yours, you are, of course, in position to know what the correspondence was. I will therefore thankfully avail myself of your offer to loan me the correspondence in order that I may restore our records in that respect.

Please send me the same at your early convenience, and oblige,

Yours truly,
(In ink) Charles W. Eberlein
Acting Land Agent.

The witness continuing, testified as follows:

In compliance with the request contained in the above letter, I sent Mr. Eberlein as complete copies as I could get.

Thereupon a copy of the above letter addressed to C. W. Eberlein dated April 1st, 1907, was introduced in evidence, marked Defendant's Exhibit 150, and read into the record as follows:

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

In accordance with your request of recent date, [2403] I hand you herewith carbon copies of my file on the subject of the transfer of the properties to the Kern Trading & Oil Co., including lease of the S. P. R. R. Co. lands.

D-G. Yours truly,

The witness here identified a letter dated April 11, 1907, received by him from C. W. Eberlein, which was offered in evidence, marked Defendant's Exhibit

151, which acknowledged receipt of the letter of April 1, 1907, mentioned above.

The witness continuing, testified as follows:

I examined a number of township plats which have been introduced in evidence in connection with the testimony of Erwin Owen, as having come from the papers of Josiah Owen. I saw them in Erwin Owen's possession sometime during 1912, in the fall, I think. I did not receive any of those plats from Mr. Owen during his lifetime from Josiah Owen during his lifetime that I know of. I don't remember ever having seen them before. [2404]

E. T. Dumble's Direct Examination Resumed.
Vol. 11, p. 5986.

DIRECT EXAMINATION resumed

As to what I had to do with the new lease drawn for the Kern Trading & Oil Company in 1907, I will say that I took the matter up with Mr. Calvin and he instructed me that since a new lease had to be drawn it would be well to include all the lands which were at that time considered oil lands, and I immediately made lists of the lands which were considered oil lands, submitted copies of the lists to Mr. Owen and Mr. Anderson, with the request that they go over it and add to or take from it. I received replies from both of them. The lists of lands now shown me, marked "Plaintiff's Exhibit 4 I" is the list of lands that was furnished me by Josiah Owen. I received a letter from Mr. Owen, dated August 12, 1907, which is now marked "Defendant's Exhibit 18", with which

he sent me an additional list of lands to be included in the lease. I don't remember where the original of that list is. After receiving the lists from Mr. Owen and Mr. Anderson, I went over the list with Mr. Anderson and prepared the list that went finally to Mr. Herrin. Mr. Herrin drew up the form of the lease. I think Mr. J. E. Foltz had charge of it.

The document just handed me is the list covering the lands in Kern County, made December 12, 1907 and signed by E. E. Calvin and J. L. Wilcutt for the Southern Pacific Company and by the same men as president and secretary of the Kern Trading and Oil Company. The notation in the lower left-hand corner of the last page "Approved as to designation, E. T. Dumble" is in my handwriting. The notation, "Approved as to form" has Mr. W. F. Herrin's name signed to [2405] it by Mr. Murphy. On each page of this document the initials of G. L. King appear. I am not sure what position he held with the Southern Pacific Company but he passed on all contracts and leases. They all had to go through his hand and be approved by him.

The defendant thereupon introduced the document referred to in evidence, which was marked "Defendant's Exhibit 152" and reads as follows:

"INDENTURE OF LEASE, made this *12th* day of *December*, 1907, between SOUTHERN PACIFIC RAIROAD COMPANY, a corporation incorporated and consolidated under the laws of the State of California, and of the Territories of Arizona and New

Mexico, and hereinafter called 'Lessor', and KERN TRADING AND OIL COMPANY, a corporation incorporated and existing under the laws of the State of California, and hereinafter called 'Lessee',

WITNESSETH :

That for the considerations and for the term hereinafter set forth, the Lessor hereby demises and lets to the Lessee, and the Lessee hereby hires and takes from the Lessor, the following described lands, situate in the County of Kern, State of California, to-wit:

KERN DISTRICT:

Township 29 South, Range 28 East,	
N $\frac{1}{2}$, N $\frac{1}{2}$ of SW $\frac{1}{4}$ and	
NW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 3	436.56 acres
Township 29 South, Range 29 East	
NW $\frac{1}{4}$ and N $\frac{1}{2}$ of SW $\frac{1}{4}$	
of Section 7	243.01 "

[2406]

All of Sections 17, 19, 21, 29	2563.76 "
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McKITTRICK DISTRICT

Township 30 South, Range 21 East,	
Section 1	847.87 "
Lots 1, 4, 9, 10; and	
NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 11	100.36 "
Township 30 South, Range 22 East,	
All of Sections 5, 9, 15, 23,	
25, and 33	3912.89 "
All of Section 7 except the	
NW $\frac{1}{4}$ of NW $\frac{1}{4}$	590.27 "

N 1/2, N 1/2 and SE 1/4 of SE 1/4; N 1/2 of SW 1/4; and W 1/2 of SW 1/4 of SE 1/4 of Section 17, .	540.	“
All of Section 21 except W 1/2 of SW 1/4 and McKittrick townsite	300.	“
E 1/2; E 1/2 and NW 1/4 of NW 1/4 of Section 27.	440.	“
N 1/2 and SE 1/4 of Section 35	480.	“
Township 30 South, Range 23 East, Section 31	640.38	“
Township 31 South, Range 22 East		
NE 1/4 of Sec. 15	160.	“
NE 1/4 of Sec. 23	160.	“
NE 1/4 of Sec. 25	160.	“
Township 31 South, Range 23 East		
Secs. 5, 7, 9, 15, 21, 23, 25 27, 29, 33, 35	7036.88	“
E 1/2 of Sec. 17	320.	“
Township 31 South, Range 24 East, Secs. 31 and 33	1312.	“

[2407]

MIDWAY AND SUNSET DISTRICTS:

Township 32 South, Range 23 East		
Secs. 1, 3, 11 and 13	2564.30	“
N 1/2 of Section 5	320.80	“
Township 32 South, Range 24 East, Secs. 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35	10239.84	“

Township 12 North, Range 24

West, 59.95 “

Lots 1 and 2, Section 25

Township 11 North, Range 24 West,

NE $\frac{1}{4}$ Section 1 159.89 “

Township 12 North, Range 23 West;

Secs. 29, 31, 33 1381.12 “

Township 11 North, Range 23 West,

Secs. 3, 5 and 9 1927.72 “

N $\frac{1}{2}$ and SE $\frac{1}{4}$ Section 15 480. “

(In ink:) G S K

This lease shall extend for a term of ten (10) years from and after the date hereof, and, thereafter, as to each of the tracts aforescribed, so long as the production of oil thereon shall continue.

As rent for the premises hereinbefore described the lessees shall pay to the lessor ten per cent (10%) of the gross production of oil therefrom -- oil used for development purposes alone excepted -- such payments to be made monthly, [2408] and at the expiration of each calendar month during the continuance of this lease.

The lessee hereby covenants and agrees to and with the lessor to pay the said rent or royalty, and to observe and fulfill all the stipulations, covenants, terms and conditions hereinbefore contained.

And, in consideration thereof, said lessee faithfully performing all of the obligations on its part herein contained, said lessor does hereby warrant to

said lessee the quiet possession of said premises during the continuance of this lease.

But, in the event of the breach of any of the said obligations herein contained on the part of said lessee, it is covenanted, agreed and understood that the lessor may forthwith re-enter upon said premises, or any part thereof, and evict and exclude the lessee, or any person or persons claiming by, through or under it, therefrom.

(In ink): G S K

IN WITNESS WHEREOF, the parties hereto have hereunto set their names by their officers thereunto duly appointed, and have caused their corporate seals to be hereunto affixed, as their act and deed, the day and year first above written.

SOUTHERN PACIFIC RAILROAD COMPANY,

(Seal of:)

By

E. E. Calvin

SOUTHERN PACIFIC

Vice-President,

RAILROAD *COMPANY*

J. L. Willcutt

Secretary [2409]

KERN TRADING AND OIL COMPANY,

(Seal of:)

By

E. E. Calvin

KERN TRADING AND OIL CO

President,

SAN FRANCISCO, CAL.

J. L. Willcutt,

Incorporated May 22, 1903

Secretary.

Approved as to description

APPROVED AS TO

of lands E. T. Dumble

FORM

Consulting Geologist,

Wm. F. Herrin

Chief Counsel M''

G S K

(Endorsed on back:) "532 *KERN TRADING & OIL COMPANY* L E A S E. Southern Pacific Railroad Co. -- to -- Kern Trading and Oil Company. Dated: Dec. 12th 1907.

(In pencil) Land in Kern, McKittrick, Midway and Sunset Districts."

The first general examination made by my department of the general grant lands, or reserved lands, was made during the year 1905 by Mr. Owen and Mr. Anderson.

There had been a blanket reservation made covering a large quantity of S. P. R. R. lands in the valley, and it was desired to have a general examination made in order to separate those which were clearly agricultural lands and outside of any field of influence of oil matters, so that they could be put on the market. My instructions as to these examinations came from Mr. Calvin. I made no personal examination of the lands, myself. The report was made to Mr. Calvin, January 1, 1906. My office is now engaged in making a more detailed examination of the same area, the examination in 1905 being merely a reconnaissance. The examination was made to [2410] designate all of the lands which were strictly agricultural and outside of those the barriers of which could be influenced by their being oil land or being near to oil fields, so that the others might be sold and the remainder reserved from sale until they could be further examined.

Thereupon the defendant introduced in evidence

a duplicate of the letter dated July 20, 1905, from Mr. Owen to Mr. Dumble, transmitting list of lands referred to therein which was marked "Defendant's Exhibit 153".

From January 1st to January 20th I was in Texas. I left Texas on January 20th and arrived in San Francisco on the 24th. I came by the Southern Pacific to Los Angeles and the Coast line from Los Angeles to San Francisco. Thomas J. Griffin did not accompany me on that trip. I left San Francisco on March 25th and arrived in Houston, Texas, on March 29th. Griffin did not accompany me on that trip. He was not with me on any part of either of these trips. I left Texas on April 21st and arrived in San Francisco on the 25th having travelled by the Coast Line. Griffin did not accompany me on that trip and was not with me on any part of it. I left San Francisco May 14th and arrived in Houston on the 17th. I travelled over the coast route. My diary does not show that I went over that route but I did because the through trains ran over the coast line at that time. My diary does not show that I stopped off any place. I again left Houston on June 26th and arrived in California on the 30th over the coast route. Thomas J. Griffin did not accompany me on that trip or any part of it. I left San Francisco July 27th and arrived at [2411] Houston on the 31st. Griffin did not accompany me on that trip. I next left Houston on August 7th and arrived in San Francisco on the 11th of that month over the coast line.

Griffin did not accompany me on that trip. I left San Francisco on August 11th and reached Houston on the 15th and Griffin was not with me on that trip. I left Houston on September 5th and arrived in San Francisco over the coast line on the 10th. We were hung up at Langtry twenty-four hours by a wash-out; got to Los Angeles on the 9th, and I have the address of a gentleman, Rev. Mr. Hazel, who at that time lived in San Jose. I took his address as we came up with him. He accompanied me on that trip. Thomas J. Griffin was not with me on that trip. I left San Francisco on October 13th and arrived at Houston on the 17th and Griffin was not with me on that trip or any part of it. I left Houston November 11th and arrived at San Francisco over the coast line on the 15th. Griffin was not with me on any part of that trip. I left San Francisco on December 15th and arrived at Houston on the 19th. Griffin did not accompany me on that trip. He did not accompany me on any trip in the spring of 1904, or at any other time in 1903 or 1904, to San Francisco or any other part of California.

I never had a conversation with Thomas J. Griffin respecting any of the lands in Kern County and particularly the lands on the west side, near McKittrick, in the spring of 1904, at the Rio Bravo property at Sour Lake in Texas, about twenty miles northwest of Beaumont, or at any other time or place. If Mr. Griffin testified that a conversation came up [2412] over the Rio Bravo well No. 107, and that we

were at that well discussing the depth of the first strata of oil that was struck where there was a gusher, and as to the probability of striking a lower strata, and the gravity of that oil that we might strike at the lower strata, and that I began to tell him about the low gravity of oil in Kern County, of the Kern field, and Sunset and McKittrick, and that I would like to find an oil of that low gravity as it would be much better for fuel, and not so much danger of fire, and would like very much to find it, or suggested that if well 107 quit flowing or quit producing that I was going to take it up with New York and get an appropriation from there to deepen that well and go down and make a test of it, it is not true. It is not true that Mr. Griffin and I had a conversation at that time wherein I said that the coming field was California and that that was where he ought to get in; that the territory was so large. I didn't say that I had been over every foot of it in person and that it was so large that one could hardly put down a hole without getting oil, and there was no conversation in which I said, "We own a great deal of that land, a great deal of it we have not yet taken patents on, but we expect to." I may have met him two or three times in the field; the first recollection, at least the first impression I have of Griffin, was in connection with a wild well near the old Sour Lake postoffice, in which, as I remember it, Griffin used a diver's suit to shut off the flow of oil. Further than that I knew of him as being connected with, I think it was the Mary Ellen Oil Company and Spindletop Power Company. I was not at

all intimately acquaint- [2413] ed with him. I never was much of talker at any time.

Q By Mr Lewers—Now, on page 2045 he proceeds, in answer to the following question: “Q—Did you have any conversation subsequent to that time with him or before that time with reference to the oil lands in Kern county? A—Yes sir. Q—Where? A—I was on the train with Mr. Dumble passing through the Kern River field, or near it when he pointed over— Q—What time was that? A—This was in the spring of 1904 while I was in the employ. Q—Were you on a trip with Mr. Dumble at that time; A—I was. Q—And where were you going to come? A—To San Francisco. Q—From where? A—From Houston, Texas. Q—On business relating to the Rio Bravo Oil Company? A—Yes sir, coming out here on business of building and conferring in the construction or erection of a refinery to be built at Welsh, Louisiana, or a treating plant. Q—Whom were you coming to see about that? A—To see Mr—the consulting engineer. I will just think for a moment. Q—Well, you were coming to San Francisco, were you? A—Yes sir, to see the consulting engineer. I can’t call his name for the moment. Q—Where were you on the train, that is, what point along the line of the road were you when the conversation took place respecting the Kern River field? A—Just north of Bakersfield or right opposite the Kern River field. Q—Now, state the conversation. A—When we were discussing the Kern River field and he pointed over with his left-hand; he was sitting

next to the window in the Pullman, and he pointed and says, 'Griffin, right over yonder about thirty miles is the biggest oil field in the world. I know [2414] it, so does all the rest of us know it. We have large holdings over there,' he says, 'I think I told you about this some time ago, and you should have gone over, or you should yet. We have large holdings and expect to have more.' " Did such a conversation take place?

A It never did.

Q Did such a conversation take place in the spring of 1904 or at any time?

A It never did.

Q Did you ever have any conversation with Thomas J. Griffin on a train in California?

A I never did. I never made such a statement to any one. I was never in the Elk Hills or on the lands in 30-23, that is in controversy in this suit; up to the time that the patents were issued there had never been a report made to me either by Mr. Treadwell, Mr. Owen or Mr. Anderson.

I have absolutely no recollection of ever having spoken to anyone or written anyone whatever regarding the oil possibilities of this land prior to the issuance of these patents; nor is there in my files, so far as the exhaustive search will disclose, a single scrap of evidence in regard to it. Mr. Griffin was employed by the Rio Bravo Company. I was Vice President and General Manager of that company and I had full charge of the operations from the day

it was formed, March 2nd, 1903. I had a talk with Mr. Griffin during the last days of May, 1904, and his actual employment began on the first of June, 1904. The Rio Bravo Oil Company had two ten thousand barrel tanks at [2415] Spindletop, a field which we had abandoned, which we wished to transfer, one to Sour Lake and the other to Welsh. I got bids for removing these tanks from several tank builders on the coast. Finding them higher than I wanted, I got hold of Griffin in some way, I don't remember how, and made an agreement with him to take charge of the work, we paying his salary. This was the beginning of his connection. Prior to that time he had not been employed, to my knowledge, by the Rio Bravo Oil Company, either specially or generally. He was not employed by the Southern Pacific Company. I have no recollection that he assisted me in connection with any matter prior to his employment at the end of May, 1904. I did not call on him for advice or assistance in connection with the construction of any refineries or lubricating plant. He left the company on the 27th of August and we paid him up to the first of September, 1904. He was not in the employ of the company after that time. I think he was in charge of the machinery, the boilers and compressors, and the shop probably, of the Spindletop Power Company. I don't remember of having had any dealings with him while he was connected with that company. I think I saw him then as we passed from the field. Upon his employment by the Rio

Bravo Company I requested passes for him over the lines in Texas and the lines in Louisiana and he had separate passes as was required by the Railroad Commission at that time, one for each state. They were sent to him on the 7th of June, 1904. I know that from a letter in my files transmitting passes. The letter was addressed to Mr. Griffin in Beaumont. I did not request the issuance of any pass to Mr. Griffin prior [2416] to these passes that were transmitted to him on June 7th. No passes were issued to employees of the Rio Bravo Oil Company except on my request. Mr. T. Fay, who was the President of the Rio Bravo Oil Company, was also Vice-President of the Sunset lines in Texas. He had authority to issue passes but he would only issue them to employees of the Rio Bravo on my personal request. I never requested a pass west of El Paso for Mr. Thomas J. Griffin. He did not hold any Southern Pacific pass west of El Paso. I never approved any voucher in payment of any expenses of Thomas J. Griffin in any trip to California nor did I ever pay his expenses on any such trip nor did I ever make any arrangements with anyone else whereby Mr. Griffin's expenses should be paid on a trip to California. Mr. Griffin in his testimony made reference to coming to California to see a certain consulting engineer and when I am asked if there was any engineer in California consulted with reference to construction of the lubricating plant at Welsh, Louisiana, my answer is "Mr. Howard Stillman, the mechanical engineer of the company, was the

man who first discovered the lubricating quality of Welsh oil by his experiments early in 1903. During that year the oil was tried out on the railroads. Very early in 1904 the matter came before Mr. Kruttschnitt, and instructions were given for a small treating plant at Welsh. A twenty-five barrel vat, which was built by Mr. Stillman and shipped to Welsh, was erected and tested. The matter was then turned over to me, with copies of all the correspondence, and on my trip to California in April, 1904, I took the matter up by correspondence with Mr. Kruttschnitt and received authority [2417] to go on with the erection of the plant. I wrote Mr. Stillman regarding that; Mr. Stillman came to Texas and Welsh in June, 1904; he and I went to Welsh together to look over the ground, and he then made his plans for the treating plant. I think it was in July that I received his plans; and so far as I now know it was on the receipt of these plans that Mr. Griffin first had anything to do with it. That was in July, 1904. At that time Mr. Stillman's office was in Sacramento, not San Francisco. I made no trip to Sacramento or San Francisco to see Mr. Stillman. I merely took it up when I was there in connection with other matters. I took no one from Texas with me on any of these trips in connection with that matter. While Mr. Griffin was working for the Rio Bravo Oil Company I think he called himself a mechanical engineer and I think he carried that title on the pay roll and probably on the passes but I am not sure of that. All that my memorandum for the year

1904 shows concerning Thomas J. Griffin is that on August 27th it simply says, "Griffin left". My recollection is that at that time he quit the employ of the company on August 4th. I was at Welsh. I went over there and arranged for the evaporating vats. Kennedy and Shaw were there that day; but I have no reference to Griffin. Independently of my memoranda my recollection is that I saw Griffin there at that time in connection with the tanks that he was building. I have no personal knowledge of where Griffin went after he ceased his connection with the Rio Bravo Oil Company at the end of August, 1904. In the latter part of August he told me that he would like to go to Mexico and I [2418] requested an employee's half rate for him over the Mexican lines but Mr. Fay said it could not be granted. It was not allowed by the statute and the refusal was not personal to Mr. Griffin. The following is a carbon copy of a letter written by me to Thomas J. Griffin and he has attached to it a blue print of the property of the Rio Bravo Oil Company at Welsh. Mr. Griffin made the notations which appear on the blue print in red (said copy of letter and blue print attached was offered in evidence and marked the Defendants' Exhibit 155, L L.) Mr. Griffin had absolutely nothing to do with the preparation of the plans for the vats and the suggestions contained on that blue print were not followed out. Mr. Griffin made several trips to New Orleans during his employment. He first went there in connection with the bottoms. The bottom plates

of the two tanks were more or less rusted out and he went to New Orleans to get new ones made and punched for them. He also went over to get bids on some seven hundred and fifty barrel tanks that we erected at Welsh and Saratoga and I also sent him to New Orleans to get bids on the plates for the vats. I was in Houston on June 23, 1904. Griffin may have been on the train once or twice on my trips about the oil fields in December about that time but I have no recollection of it. In Defendants' Exhibit 119 the letter of September 21, 1903, reference is made on the first page of the letter to certain attached maps and I will now explain what maps were attached to that letter. There were two maps which were identical with those submitted to me by Mr. Owen in response to my letter of June 11 [2419] One was a map of the McKittrick field. I retained a copy of both maps. This other map is a copy of the one attached to my letter to Mr. Kruttschnitt on September 21, 1903. This map was made by me from the original map submitted by Mr. Owen, of which I have spoken. The notation written in ink at the upper right hand corner was written in the spring of 1912 by me in Mr. Kruttschnitt's office while I was in New York. It was not there prior to the time when I turned these maps over to Mr. Kruttschnitt in 1912. I did not make the pencil notations at the upper right hand corner of the map which notation looks like "Ant 1903". I do not know who made those notations or the notation in pencil on the map "Map No. 4". With the exception

of the notations which I have mentioned the balance of the map was made by me. This is a copy of one of the maps which I sent to Mr. Kruttschnitt September 21, 1903. It was a copy of the map sent to me by Mr. Owen. I am not prepared to state whether I sent the original map made by Mr. Owen or whether I sent a copy of it to Mr. Kruttschnitt, possibly I may have done both. It is customary, usually, in connection with such papers to prepare copies of such maps. I was in San Francisco on September 21, 1903, when I wrote this letter to Mr. Kruttschnitt, that is, according to my diary. (The map last referred to was offered in evidence and marked Defendants' Exhibit 156). This other map which you show me is the original map which I received in connection with Mr. Owen's letter of March 25, 1903. The legend in the lower right hand corner is in the handwriting of Mr. Owen. I don't know in whose handwriting the words "March 25, 1903". That was not on the map at the time I turned it in with the other [2420] map in 1912 and that notation and the date was not on the map as originally handed to me by Mr. Owen. There is a pencil notation of my own on section 21 marking the location of McKittrick. This notation is "McK". Aside from these pencil notations the map is in absolutely the same condition as when it was received. This map referred to and offered in evidence is marked Defendants' Exhibit 157 L.L. The map which I now produce was found in my Houston files in connection with the letter of Mr. Eberlein October 8, 1904. This map was prepared by Mr. Redfern. He

copied it from the maps which accompanied Mr. Eberlein's letter. I do not know personally that this is a correct copy of the map that accompanied Mr. Eberlein's letter of October 8th, 1904. This map was in my Houston files until I turned it over to Mr. Kruttschnitt with those other maps. It was received by me last night from New York. This copy was probably made immediately upon the receipt of those maps in the due course of the mail at Houston in October, 1904. The letter was dated October 8th and a copy was made about that time. Generally, if the office business would permit it, copies of maps were made immediately when they came in for the Houston files. (The map last referred to was offered in evidence and marked Defendants' Exhibit 158 L.L.)

CROSS EXAMINATION.

I think I first met Josiah Owen in 1887 or 1888 at Austin, Texas. In September, 1887 I was appointed State Geologist and engaged Mr. Owen for a month's service in the coal region around Eagle Pass; received the report in December of that year. In September, 1897 I went to Sonora [2421] and finding I needed a man who understood Spanish and the coal business I wrote to Mr. Owen to come out and help me there. This was in Old Mexico. My recollection is that he arrived there in October or November, 1897. At that time I was employed by the Southern Pacific Company. Mr. Owen worked for the Southern Pacific Company in Mexico I believe

continually, or practically so, until 1901 and he was there afterwards at times when I sent him down on special business. He was under me all the time. Mr. Owen and I were directly connected in the Pilares coal field, in the Piedrayman iron property, and in some small precious metal prospects around San Xavier. This was a private venture and I continued in private ventures of that sort with Mr. Owen up to the time of his death, both in Mexico and the United States. I met Captain McKittrick once. I think it was at Bakersfield or on the train with Mr. Owen. Mr. Owen knew him in Mexico. My present employment by the Southern Pacific Company was commenced in March, 1897, and my title under that employment is "Consulting Geologist". At the time of my employment I was working for a railroad which afterwards was taken over by the Sunset lines in Texas, which are a part of the Southern Pacific Company system. I first met Julius Kruttschnitt in 1872 or 1873. We were school mates at Washington and Lee University and have been acquainted ever since. I am the geologist in charge of the geological work generally of the Southern Pacific Company. I handle the geological work for the Kern Trading and Oil Company. I am Vice President and General Manager of the Rio Bravo Oil Company. I am Vice President and General [2422] of the East Coast Oil Company S. A. I have no relations with the Associated Oil Company. At one time I was a director in the Associated Oil Company. I cannot give the

year but the records will show. It was subsequent to the time when the Southern Pacific Company acquired a controlling influence by stock ownership in the Associated Oil Company. I don't recall what year it was. I have never been a stock holder in the Associated Oil Company except that I had qualifying shares so that I could be a director. I did not sell those shares but turned them back to the Southern Pacific Company. I am a stockholder in the Rio Bravo Oil Company. I am not a stock holder in the Kern Trading and Oil Company. I am not at present but have been in the past, an officer of the Kern Trading and Oil Company. I was Vice President and General Manager of that Company. As a director in the East Coast Oil Company I hold shares of stock. All these three companies that I have mentioned are owned and controlled by the Southern Pacific Company, defendant in this case. As a geologist in the employ of the Southern Pacific Company I have performed geological work for the three companies I have named and my salary was paid by the Southern Pacific Company, defendant in this case, and has been ever since I was employed. There was one other company which I neglected to mention which was a subsidiary of the Southern Pacific Company and that was the Sunset Development Company which operated in Mexico. Including services which were rendered to the Southern Pacific Company itself, the salary which was paid to me by the Southern Pacific Company was apportioned to

the various companies which I have mentioned [2423] At one time there was apportioned out of my salary for the services rendered the Rio Bravo Oil Company \$166.66 a month. My salary is materially larger now than it was in 1904. My salary in 1904 was \$5000 a year and since then it has increased a hundred per cent. I first met J. B. Treadwell when I made a trip to the oil fields in July, 1901. I remember meeting Mr. Treadwell on the train between Houston and El Paso after the bringing in of the gusher at Spindletop. Whether this was prior to or after my meeting in the oil fields in 1901, I am not prepared to say. I assisted Mr. Treadwell in the California Oil fields in 1903. Mr. Treadwell, to my knowledge, was in the employ of the Southern Pacific Company in Texas. I met him in Texas, in the summer of 1901, on the train. I think it was in January. At that time he told me that he was in the employ of the Southern Pacific Company in the oil business in Texas. I was not in the employ of that company in 1901. I was working coal lands almost entirely and other minerals not oil. I think I met Mr. Treadwell at Beaumont a time or two and possibly a year or so later I may have met him in Texas a time or two. So far as I know Mr. Treadwell was in charge of the Southern Pacific oil business in Texas. I assisted Mr. Treadwell in Texas as well as in California. I don't know it personally, that Mr. Treadwell was buying lands in Texas which were said to contain oil, in his own name for the benefit and in trust for the

Southern Pacific Company. He bought certain lands at Spindletop which came into the possession of one of the railroad companies there. I do not know that he bought it [2424] in his own name and that it afterwards came into the possession of the company. I meant that the lands which he had and was operating came into possession of the railroad company in Texas. I do not know that he was operating those lands in his own name. When I came to California to take charge of the oil business of the Southern Pacific Company and its subsidiaries I didn't know anything about the amount of land Mr. Treadwell had in his own name in the Kern County oil fields. He had some lands at McKittrick. When you ask me if I knew or discovered shortly after I took possession, that these lands had been purchased by Mr. Treadwell in secret trust for the Southern Pacific Company, my answer is "I don't know anything about the secret part of it." My recollection is that when I arrived at Oil City it was perfectly well understood that that was Southern Pacific property. Some of those lands were held in the name of J. B. Treadwell. I did not know that he held a great quantity of land in Kern county in his own name. If I noticed his name on the railroad company maps on parcels of land which I knew belonged to the Southern Pacific Company I paid little or no attention to it. I did not know it as a fact that Mr. Treadwell did buy lands in behalf of the Southern Pacific Company in his own name. All I know is what Mr. Treadwell told me. He told me

that he bought lands with his own money, and then offered them to the railroad company, and if they wanted them they took them off his hands at the price he paid for them. I have no way of fixing the date when I became acquainted with George A. [2425] Stone. I have no recollection of Mr. Stone prior to the spring of 1905. I don't know if Mr. Stone was Assistant to the Acting Land Agent of the Southern Pacific Company, Mr. Eberlein, in 1903. I do not remember seeing him in the Land Department of the Southern Pacific Railroad Company in 1903. I don't remember having any correspondence with Mr. Stone in 1903. When you inform me that Mr. Stone testified that I, as the geologist, pressed the selection of the lands in suit for reasons best known to myself and then ask me what those reasons were my answer is, "I never pressed the selection of those lands." I did not go to see Mr. Stone in the Land Department in 1903 and recommend the selection of these lands because of my belief that they were oil bearing in character. I did not know that these lands were to be selected at that time. Knew absolutely nothing about it. I did not know that they were oil bearing lands in 1903 and I had not received a report from Mr. Owen showing that they were oil bearing lands and Mr. Owen had not, to my knowledge, been over these lands in 1903 and carefully examined them and reported upon them to me and he had not, at that time, reported upon other lands which had not been patented, to me. I won't say that he never reported

to me on any lands in section 30-23 or 30-24, which had not been patented. I did not, about September or October, 1903, or earlier, in pursuance of that report showing these lands were probably oil lands, go into Mr. Stone and urge the preparation of the selection list known as list 89, for the selection of these lands. I did not have trouble with [2426] Charles W. Eberlein in 1903 because of my activity and the activity of my men in examining patented lands falling within the grant and inuring to the Southern Pacific Railroad company. I never had any trouble with Mr. Eberlein in regard to my examining, or directing the examination geologically, of lands which would inure to that grant if agricultural. At no time did we have any instructions or did I give any to any of my men to examine any lands other than patented lands. I never heard of any trouble at all between the Land Department of the Southern Pacific Railroad Company, which was being administered by Mr. Eberlein, and the Geological Department of the same company, over which I presided, with regard to the examination of unpatented lands. I don't remember of any trouble other than would arise between any departments in the administration of their separate work. I did not send repeatedly to the Land Department to get lists of the lands of the Southern Pacific Company and lists of their unpatented lands, for the purpose of making examinations. I think sometime later Mr. Eberlein refused to turn over complete lists of the lands of the company. I don't remember just

when. When you ask me if I knew that Mr. Eberlein believed that my examination of these lands in the immediate vicinity of the lands in suit and my inclusion of lands adjoining the lands in suit in a proposed lease to the Kern Trading and Oil Company, would jeopardize the selection list Eberlein had made for these lands in suit, by giving notice to the company of their probable oil character and that I knew that before [2427] patent, my answer is, "Only when I received that information from Eberlein at that time." Eberlein stated that he believed that it would create notice to the company of the mineral character of the lands that are the subject of this suit but I didn't think so. From my conversation with him I didn't believe it because the lands that he had selected were not interspersed with any that he had. When you ask me if I knew that Mr. Eberlein believed at that time that the execution of this lease would fix the mineral status of these lands in suit my answer is, "I didn't think it would fix the status of it." I don't know whether Mr. Eberlein believed it or not. I did not talk over the matter considerably with him in a room known as room 71. Not to my recollection. Mr. Eberlein may have stated to me at that time the grave danger of my including these lands which I proposed to put into these lease to the K. T. & O. Company because of the danger that the lease might be rejected by the United States Land Office for the lands in suit. I don't remember what statement he did make in that room and when you

ask me if I understood from my talk with him that he believed that my activity in regard to this lease here to the K. T. & O. Company was seriously endangering the possibility of the acquisition of those lands in suit because of their mineral character, my answer is, "I can't remember whether he thought it would seriously endanger or whether it would simply act as a bar in some shape to his getting his title as quickly as he wanted to and when you ask me if I knew at that time that [2428] if that lease became public Mr. Eberlein believed that it would operate as a rejection of that list which had been presented to the United States Land Office my answer is, "I don't think so." I did not discuss it with him to my recollection. I absolutely did not regard it as a danger myself. When I wrote Mr. Eberlein on March 15, 1907, Defendants' Exhibit 148, and stated "early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed," the danger that I referred to was just as I stated; danger of interfering with him and the danger that these lands might be delayed and not be patented because of their mineral character; that they might be delayed for further investigation probably by the United States Government. According to Eberlein's idea the United States Government might

make further investigation and this lease would interfere with his operations, that is, with his obtaining the patent for these lands in suit. There was not any danger that I saw, in the execution of that lease. The language in this letter where I said I agreed to defer the execution until that danger was passed was so far as he was concerned. I did not agree with him that it was dangerous at that time. I have already testified that I agreed with him that it was better to defer the execution of that lease until the patent was issued. I agreed to this for his satisfaction. In my opinion the lease would have nothing to do with the patent. [2429] I agreed that I would defer the execution of that lease until after the patent should be issued to meet his request and when you ask me whether or not I didn't agree to that proposition my answer is, "I have answered it time and time again. I agreed to defer it in deference to his wishes until the patent was issued. I did that simply to ease the matter over. I did not know these lands were mineral at that time. I did not have maps and reports showing these lands were probably mineral lands and I did not secretly go to Mr. Stone, the assistant to Mr. Eberlein, to urge the selection of these lands because I knew in my heart that these lands were mineral and when you ask me if I agreed with Mr. Eberlein in room 71, where we could be alone, that it was best, according to his wishes, not to execute that lease until after the patent was issued so I would not have trouble with the United States Government, my an-

swer is, "I simply agreed in deference to his wishes to let it go over, that was all." I knew that Mr. Eberlein didn't believe before that time, that those lands were mineral. I never saw his map on which he had marked those lands showing that they were next to lands which were believed to be oil lands. I wrote to W. H. Bancroft on December 7th, 1904, as follows: "In connection with our correspondence regarding the transfer of property to the Kern Trading and Oil Company, I have had a conversation with Mr. Eberlein and it seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present." When you ask me what I meant [2430] when I said it was best "for reasons of policy" touching these certain unpatented lands, my answer is, "that was to help Mr. Eberlein out with his idea. I did not have a remote suspicion at that time that those lands were believed to be mineral. I had no reports that these lands were mineral and I was not trying to jam that patent through. When I stated further in that letter "I would, therefore, suggest that the papers covering the transfer of property from the S. P. Co. to K. T. & O. Co. be executed and that the lease of lands in the McKittrick and Coalinga districts from the S. P. R. R. Co. to the K. T. & O. Co. be held up for the present," by the words "held up for the present" I meant just what it says. I don't remember anything further than what is in the letter. I did not mean

what I said awhile ago “until the patent could be issued”; I didn’t pay any attention to that. I don’t know that I stated that I understood that Mr. Eberlein wanted to defer that until the patent was issued, and when you ask me if that is what I meant, my answer is, “I don’t know that I stated that”. Only for what Eberlein said did I know at that time that those lands hadn’t been patented and when you ask me if I didn’t mean that I wanted it held up until the patent issued my answer is, “I had no wants in the matter one way or the other.” I suggested that to Mr. Bancroft, the Acting Manager, because Mr. Eberlein was in charge of the Land Department and I deferred to his wishes entirely and I assumed the responsibility of recommending in my own name to Mr. Bancroft that it be held up; I didn’t say until the patent could be issued for those lands but you may say so. To [2431] the best of my knowledge and belief at that time I had never seen Mr. Stone and had a conversation with him with reference to the making up of the selection list which forms the basis of the patent to the lands in this suit. I didn’t know that Mr. Stone had been discharged by Mr. Eberlein after the patent was issued in this case. I did not know that Mr. Stone had written a threatening letter to Mr. Kruttschnitt in which he said that if he were not re-instated that he would lay the matter before the Attorney General of the United States or give the matter to the public press. I never heard of it until after this suit was—until it came up in the testimony

of this case. I did not know that Mr. Stone was discharged. I don't know if Mr. Stone is a pensioner of the Southern Pacific Company at the present time. I know Mr. Stone now; I did not know him at that time. I don't remember him in 1903 and I can't place him in 1904. I believe I did get a letter from Mr. Eberlein in 1904, dated October 8th, in which Mr. Stone signed Mr. Eberlein's name. When you ask me did not Mr. Eberlein explain to me that he was rushing these lands in suit to patent, as I have stated in my letter of March 15, 1907, to Mr. Eberlein, my answer is, "I don't remember whether I did then or afterwards.

Q You say here, "Early in December we had a further conference on the matter"—you are referring now to 1904—and you explained that you were rushing certain lands for final patent. Did Mr. Eberlein explain that to you?

A I don't remember the conversation at that time.
[2432]

Q Well, if you stated that in this letter, is it true that he explained to you that he was rushing these lands in suit to final patent?

A I suppose that is as I remembered it; but I have no recollection of it now.

Q I am asking you now, if you find it in this letter, if it is true?

A I suppose it was the impression I had on my mind. That is all I can tell you.

Q That Mr. Eberlein explained to you that he

was rushing these lands in suit to final patent, as you have stated in this letter?

A I suppose that was my impression of it at that time.

Q Yes. And you also stated in that letter that you agreed with Mr. Eberlein to defer the execution of the lease until the danger was passed?

A That is the statement.

Q That is true, isn't it?

A That is the way it is stated there.

Q Did you agree with Mr. Eberlein to defer the execution of the lease until the danger was passed?

A The letter to Mr. Bancroft is evidence of what I did.

Mr. Lewers—I submit that has been asked and answered four times.

Q By Mr. Mills—I now ask you, did you agree, as you stated in this letter, with Mr. Eberlein, to defer the execution of the lease until the danger was passed? [2433]

A I say again that I don't remember the conversation.

Q You have stated here that you did agree to that, in this letter. Now, is it true that you did agree with Mr. Eberlein to defer the execution of this lease until that danger was passed? I ask you whether that is a fact or not?

A I can't say at this time exactly what was agreed at that time further than that we did agree to defer the signing of the lease until a later time, for his special benefit—for his convenience.

Q For Mr Eberlein's convenience?

A Yes, for the convenience of his work.

Q It was because you recognized, as you said in that letter, that there was a danger in the execution of that lease?

A I have already explained that also.

Q Is not that true?

A I have explained that.

Q I call your attention again, Mr. Dumble, to the statement contained in the letter written by Mr. Eberlein to H. H. Markham, dated September 10, 1904, Plaintiff's Exhibit KK, page 1749 of the record: "In addition to this there is a very urgent reason for delaying the execution of these papers. We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character. Should the existence of this lease become known it would go a long way toward establishing the mineral [2434] character of the lands referred to, and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted." Now, you have testified that you got a copy of that letter, sent to you by Mr. Markham. That is true, isn't it?

A I got a copy of a letter sent to me by Mr. Markham, of which that purports to be the original.

Q Yes. Now, at that time, the time you received a copy of this letter—do you remember the date?

A Sometime in September, I believe you read there.

Q September, 1904?

A September, 1904.

Q What did you understand by this language: "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease and which we have represented as non-mineral in character?"

A I don't remember ever having seen that particular clause of that letter.

Q If you had seen it would you have remembered it?

A I think I would, and I think I would have replied to it, because of the facts as shown here (pointing to map).

Q What did you understand this meant: "Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented?" [2435]

A That is part of the same sentence, is it not?

Q No. It is part of the same letter.

A Same letter. I have no recollection of that.

Q If that was in the copy which was sent to you would you have known it and remembered it?

A I think I would, and have replied to it in my letter to Mr. Markham.

Q What did you understand this meant in the copy which you received: "We could not success-

fully resist a mineral filing after we have practically established the mineral character of the land?"

A I don't remember that in my copy.

Q Do you claim now that it was not in the copy which you got?

A I have no way of establishing what was in the copy, as I have not one; but I have no recollection of that having been in it.

Q And you think you would have replied to it, do you?

A I think I would have replied to it promptly.

Q Then your explanation is that it was not in the copy which you received?

A I don't think it was.

Q "I would suggest delay at least until this matter of the patent can be adjusted." What did you understand was meant by that in the copy which you received from Mr. Markham?

A That was part of the same sentence. [2436]

Q That is the next sentence. What did you understand that meant?

A I don't remember it at all.

Q Are you satisfied that was not in the copy which you received?

A Practically so. I don't remember positively one way or the other.

Q Now, don't you know, Mr. Dumble, that all the excerpts from that letter which I have read were in the copy which you received from Mr. Markham?

A I do not.

Q And that you distinctly remember it?

A I do not.

Q And it was right in line with what you had done?

A No sir.

Q Namely, as Mr. Stone testified, to secretly urge the selection of these lands because of their mineral character?

A It is not so.

Q You knew they were mineral, didn't you?

A I did not.

Q When did you first discover that these lands were mineral?

A I have not discovered it yet.

Q You don't know that they are mineral?

A No sir.

Q Where Mr. Eberlein suggests to Mr. Markham, "I would suggest delay at least until the matter of the [2437] patent can be adjusted", that delay which he refers to is the same delay that you and Mr. Eberlein agreed to in room 71 and which formed the subject of your letter of December 7th, to Mr. Bancroft, is it not?

A It has no connection with that. Our conversation in room 71 had no connection with that part of that letter.

Q You had a conference, didn't you, about delay?

A Yes.

Q In the execution of the lease?

A The execution of the lease.

Q Yes. And that is the same delay Mr. Eberlein

refers to here. delay in the execution of the lease until the patent to the lands in this suit could be effectuated or readjusted? Is that not so?

A It had not connection with that letter, so far as I know.

Q Well, it is the same delay, as you now understand it?

A It was a delay for the purpose of finishing up his titles.

When you ask me if I did not suggest the delay which I had discussed with Mr. Eberlein in response to the adjustment of the patent, my answer is: "That on December 7th, 1904, I wrote Mr. Bancroft 'I would therefore, suggest that the papers covering the transfer of the property from the S. P. Co. to K. T. & O. Co. be executed and that the lease of lands in the McKittrick and Coalinga districts [2438] from the S. P. R. R. Co to the K. T. & O. Co. be held up for the present'". I think that is absolutely as clear an answer as I can make. This entry on my diary for November 28th, 1903, is "Met Mr. Harriman, Wilcox, Huntington; showed them over oil field." Prior to 1904 I was not acquainted with W. D. Cornish. I heard him referred to as Judge Cornish who had charge of the land—or was probably Vice President of the Southern Pacific, but I have no personal knowledge of his position or title. I believe his office at that time was in New York City. I do not know what Mr. Eberlein meant when he wrote in Plaintiff's Exhibit TT "if knowledge of this lease becomes public property it will probably cause us a great deal of

trouble in the United States Land Office and may result in the loss of a large body of adjacent lands". I have absolutely no recollection of the conversation in which there was a discussion about the dangers attendant on the execution of that lease before the patent for the lands in this suit would be issued. It is perfectly blank in my mind. Mr. Eberlein was the head of the Land Department and as such had charge of the grant lands whether they were patented or unpatented. I had charge of the oil production and nothing whatever to do with the general land work. My duties concerned the examination geologically, to determine their mineral or non mineral character only of such lands as I was instructed to examine and such as belonged to the company. When I wrote Mr. Kruttschnitt that I intended to make a thorough and detailed examination of all the lands [2439] geologically I referred simply to the grant lands. Geological investigations cannot be limited by section lines. They have to take in a whole area. The lands in 30-23, which are the subject of this suit, were not examined geologically to my knowledge prior to the selection thereof in the fall of 1903. I do not know that my assistant, Mr. Owen, examined those lands in 1903 with a view of determining whether or not they were oil bearing. I don't know of any examination made by him of those lands to determine whether or not they were oil bearing prior to December 12, 1904. This exhibit 157, which I produced this morning and which accompanied the letter of March 25, 1903, from Mr. Owen was received by me in March, 1903. It

shows a anticlinal run through the lands in the Elk Hills in Township 30 South, Range 23 East, and the lands in the suit; it shows Mr. Owen's idea of an anticlinal run through there, which I had not in mind that he had ever been over that part of the land. That map was sent me with a letter which gave a geological report of the West side fields, the McKittrick fields only, I think. Personally I can't say where the Elk Hills are located geographically. My understanding of it is that the Elk Hills take in part of 30-23 and 30-24, but I am not positive. They are nearer to McKittrick than they are to Midway, I believe. We didn't know them as the Elk Hills in those days or have any name for them in fact. It appears from the map that Mr. Owen made a geological study of the portions of the lands which he has indicated on that map and it seems that he has indicated an anticline running out that way. So far as [2440] the lands in 30-23 are concerned the anticline runs through sections 19, 20, 29, 28, 27, 26, 25 and 36. This leaves the easternmost boundary line of the township. The sections just beyond that, 30-24, is section 31, 30-24, and just north of section 31 is section 30. Section 32 of 30-24 lies East of section 31, 30-24 and the anticline leaves 30-22 through section 24. This map does not say anything about patented lands on here but it says: "S. P. R. R. Lands" which, as I would assume, were patented lands, and I find the Southern Pacific Railroad patented lands shown on this map at the date the map was executed, the northwest quarter of section 17, the northwest quarter of section 19, and

all of section 31 in Township 30 South, Range 23 East. These lands were Southern Pacific Railroad lands according to the legend on the map at that time. Mr. Owen at that time, by that map, recommended that those lands be reserved from sale by the railroad company; that is according to that legend. Those lands, as I understood, had already been reserved and I understood that they had been reserved from sale due to some suggestions from my predecessor, Mr. Treadwell. I have no knowledge of what lands Mr. Treadwell recommended but I understood that there was—that in addition to the lands he did—whatever lands he may have recommended, there was a blanket reservation put on by some one to cover all lands anywhere near the oil fields. Who that was I don't know. That was my understanding at the time I assumed charge of the oil fields in California. The purpose of doing that, as I understood it, was to escape the possibility of selling lands for two dollars and a half an acre which might be in fact petroleum lands. [2441] I made no change in that policy of Mr. Treadwell's after I assumed control of the oil situation. I had nothing to say about it at that time. I have no personal knowledge that that policy grew out of the indiscriminate sale of lands in the Kern River oil field as agricultural lands at two dollars and a half an acre which left the company with slightly more than one section of land in those fields. I had no authority to disturb in any way that policy which I found in force when I assumed charge after Mr. Treadwell left the field. As far as I know I did not attempt to

disturb that policy of the company. I was not the one to be disturbed. I was in the position as a consulting engineer of the Southern Pacific company and was examining grants to the Southern Pacific Railroad Company geologically, or directing that examination so as to make suggestions regarding the reservations of lands from sale. Unless the question had been put up to me in some way I don't think I would have tried to make any suggestions as to a change in that policy. I felt that it was the correct policy and I felt it was my function as a geologist to continue that policy. When I received this map from Mr. Owen in 1903, Plaintiff's Exhibit 157, I was interested in the geological features of it. I have no recollection of any township plants which accompanied that letter. I know they were referred to in that letter by Mr. Owen and he sent me some field sketches of township plats. I know that that is stated in the letter but I have no recollection on it. [2442]

Q Now, on September 21st of 1903, which was several months after the receipt of this map, you wrote Mr. Kruttschnitt in part as follows: "The attached map show these under three heads", that is, what lands you considered valuable for oil purposes, "First, oil lands proven or practically proven, colored red; very probable oil lands, colored green; probable oil lands, colored blue. Of the oil value of the first two classes there is very little doubt. The third depends in part upon the continuance of normal dips and conditions, but in addition it represents untested anticlinals which show good indications of

oil." You had in mind at that time the work which had been done by Mr Owen in the field, did you not?

A A later work than this, yes sir.

Q A later work than this?

A Yes sir.

Q Did Mr Owen furnish you with maps later than this and before September 21st?

A Furnished me with maps in answer to my letter of June 11, 1903.

Q Are those the maps which you brought here with you?

A Those were the maps that were presented in evidence this morning, yes sir.

Q You also had in mind this Exhibit 157, did you not?

A In a way.

Q Clearly showing the anticlines in that field?

A Yes sir. [2443]

I did not make a detailed study myself excepting the field around McKittrick. I hadn't been in the Elk Hills or the Buena Vista Hills or the Midway at that time. Under certain conditions I regarded at that time anticlinals as good physical evidence in an oil field of the presence of oil, petroleums. The conditions would depend entirely upon the facts as I found them or understood them from my assistants. When an anticlinal, which in addition to being an anticlinal, shows indications of oil I thought it was a good one. It might and it might not be a fact that when I found an anticlinal in lands which were in the immediate vicinity of oil lands, proven oil lands, it would be an

indication to me of possible oil land; it would at least induce me to look into it if I had any interest in it. So far as I know that anticline running across township 30 south, 23 east, passing through sections 19, 29, 25 and 27, was an untested anticline but it does not fall within the description which I gave Mr. Kruttschnitt of probable oil lands where I state "It represents untested anticlinals which show good indications of oil. Defendants' Exhibit 115 is a map that Mr. Owen obtained from the Land Department of the Southern Pacific Company in September, 1902. There appears upon this map in the legend "All shaded tracts, reserved from sale, because in or near oil territory". The shaded tracts in township 30-23 are sections 3, 5, 7, 9, 11, 13, the northwest quarter of 17, northwest quarter of 19 and all of section 31 and the shaded tracts in township 30 south, 24 east, as shown by this exhibit are sections 1, 7, 17, 19, 21, 23, 25, 27 and [2444] 35. There is nothing on that map to show one way or the other, on the date of the delivery to Mr. Owen of this map, or just prior to that time when this map had been constructed, that the lands in this suit appear not to have been patented nor does it show the patenting of sections 29, 33 and 31 in township 30, 24.

Q Now, will you show, beginning at the Buena Vista Lake, the nearest lands to the Elk Hills, and particularly the lands in this suit, which were shaded, beginning at Township 31 South, Range 24 East, beginning at this end of the lake, that is, along here? (Indicates)

A 15, 17, southwest quarter of 7.

Q Now, in 31-23?

A South half of 13, all of 15 and the east half of 17, all of 9, 5.

Q Now, the lands which you have described completely enclosed on the north, the northwest and the south and the west, the lands in this suit, did they not?

(The last question is read by the reporter.)

A They do.

Q Those were the lands which had been reserved from sale because they were in or near oil territory in 1902, is that correct?

A According to the legend of this map, but they were a part of a blanket reservation, general reservation.

Q Yes, they had been reserved from sale, had they not?

A They had been reserved from sale. [2445]

Q And you so understood from Mr. Treadwell?

A I had no knowledge from Mr. Treadwell of what lands were reserved. This is my own information as to what lands were reserved.

Q Now, with reference to the line of oil outcrop along the eastern flank of the Temblor Range, running from McKittrick in a southeasterly direction towards Sunset, how much further away is the nearest land which was then reserved by the railroad company from sale because in or near oil territory, in Township 30 South, Range 24 East, than the further-

most lands from that line of outcrop of the lands in this suit?

A Well, I never estimated it.

Q Well, it would be at least six miles, wouldn't it? It would be across a township?

A It would be across a township.

Q And that would be six miles, wouldn't it?

A In that location, No. 1, it would be six miles.

Q And also in this location here it would be six miles?

A It would be six miles from that line.

Q Then when you took charge of the geological affairs of the Southern Pacific Company in California in reference to the oil lands of the Southern Pacific Railroad Company, you found that it had been the policy, which you say you did not disturb after you took charge, to hold in reservation from sale, because in or near oil territory, all of the lands which were owned by the Southern Pacific [2446] Railroad Company in Township 30-23 and in Township 30-24?

A That was their policy.

Q And you found that to be a fact, did you not, Mr. Dumble?

A Yes sir.

Q Now, if the lands in suit had been patented at that time, and basing your answer solely upon what you know of that reservation order, what you were told by Mr. Treadwell, and upon that exhibit which you yourself brought into court, those lands would most certainly have been reserved with the others, would they not?

A If a blanket reservation had been put on cover-

ing all lands in the valley as that was it would certainly have covered any lands they might have had in 30-23 or 30-24.

Q Yes, and would certainly have covered the lands in this suit?

A Unquestionably.

Q So that if the patent had then been issued to the lands involved in this suit and you had found that policy in effect, reserving those lands because they were in or near oil territory, you would not have disturbed it, would you?

A I would not.

When you ask me if Mr. Owen, to my knowledge, reported on patented lands in the West side oil fields and by patented lands you mean those which would inure to the Railroad Company if agricultural, my answer is: [2447] "I can't give you the date and the scope of any such report. My recollection is that Mr. Eberlein made a request regarding certain lands and that Mr. Owen answered it." I can't tell you what lands the request was made with request to. I suppose they were unpatented lands. They were in 31-24 as I remember but I haven't the data here to give you. I don't know whether or not they were selected by the company. I have no personal information regarding that. I remember a telegram from Mr. Eberlein and one from Mr. Owen subsequent to 1904. I have not got those telegrams. The telegram of Mr. Eberlein concerns lands in the northerly part of 31-24 and it concerns lands which had not been patented, as far as I know. My recollection is that Mr. Eberlein wanted

to know if they were oil lands. The telegram of Mr. Owen was that they were not oil lands. I don't know whether or not these lands were ever selected. I don't remember if Mr. Owen ever examined the north half and the southeast quarter of section 7, of 31-24 and made a favorable report upon it as oil lands at a time when those lands were not patented. I have no personal recollection that Mr. Owen made a report to me in 1905 stating that those subdivisions of section 7, 31-24, were oil lands. I do not recall the letter or report of July 16th, 1905, addressed to and headed "Oil Lands" in which Mr. Owen stated "I have included all sections where parts of sections are considered oil lands and the rest doubtful." When you ask me to read from this report what description Mr. Owen considered as oil land [2448] in section 7 of 31-24, my answer is "On this sheet it says the North half and southeast quarter of section 7, 31-24, four hundred and eighty acres, but so far as I know I never read that letter. I do not know if at that time the Southern Pacific Railroad Company by patent owned the north half and southeast quarter of section 7. The maps and exhibits in this case don't show it as being patented by them but I have no personal knowledge of it.

Q Mr Dumble, Mr. Eberlein testified that beginning with the year 1904 he began making protest to you in writing about your examination of unpatented lands. I am reading from page 1836 of the record, which reads as follows, beginning at the top of the page: "A—I don't remember a discussion with Mr.

Dumble. I know I made protests in writing to him; but the discussion was had with other people—not with Mr. Dumble. Q—Well, with whom? A—Well, the matter was discussed with Mr. Kruttschnitt, Mr. Cornish and Mr. Markham, as I remember it. Q—Beginning about what time? That is, what year? A—It began in this year of 1904. Q—Right after this lease was proposed? A—Yes; I think about that time. Q—Well, what was the subject of that discussion? Did you ever make any protests, in any of those discussions, against the examination of lands by Mr. Dumble? A—I objected to Mr Dumble's examination of unpatented land without any reference to the department, for the reason that I was fearful that it might charge us with notice of the mineral character of the lands." Now, does that refresh your recollection in any way about your discussion with Mr. Eberlein why that lease [2449] should not be made public at a time when he had under selection the lands in this suit, and before the patent issued?

A I don't remember of ever having received any notice of the kind from Mr Eberlein at any time.

I had no papers that I can find, or any letters from Mr. Eberlein protesting about examination of the unpatented lands. Mr Eberlein's answer "I objected to Mr Dumble's examination of unpatented land without any reference to the department, for the reason that I was fearful that it might charge us with notice of the mineral character of the lands", does not refresh my recollection about the conversation with Mr. Eberlein in room 71 just prior to my letter

to Mr Bancroft. I have used every method in my power to recall something of that conference but I have been absolutely unable to do so. I don't remember that Mr. Eberlein at any time said to me that the examination by my geologists of unpatented lands would lead to bad results in the Land Office, that is to say that it would result in the company losing lands which had been selected as agricultural lands, and would tend to embarrass me and my men and perhaps make me a witness against the company in mineral contests thereafter. I don't remember any such statement from him.

Q "Mr Dumble didn't give us any information at all—never did—didn't cooperate in any sense at all—and I heard or had reason to believe that a good deal of examination was going on of granted lands, and such of those as were unpatented, and believed that it was very bad policy [2450] to examine before patent issued, especially without any reference to the land office." Now, does that refresh your recollection as to the meaning of your expression in your letter to W. H. Bancroft, of December 7, 1904, "I have had a conversation with Mr Eberlein, and it seems for reasons of policy regarding the certain unpatented lands, that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present." Was that the policy as you now recollect it that you referred to?

A I have explained that Mr Eberlein was at the head of the land department and I was head of the oil producing department. I had nothing to do with

any lands which were not oil lands, and which were owned by the company, but as being head as you might say, a coordinate head, and working for the same company, I had no desire to throw any impediments in Mr Eberlein carrying out his own views in his own work. Furthermore, as head of the oil producing department, I had full—I was in full possession of all the lands which I thought were of any value for oil purposes, and the signing of that lease or the leaving it unsigned made no difference in my work, and consequently, as a matter of policy, it was perfectly immaterial to me whether it was signed or not, and if it would suit his purposes better, I was perfectly willing that the signing of it should be deferred.

Q Well, I refer particularly, Mr Dumble, to the statement by Mr Eberlein at page 1836 of the record where he says he believed that it was very bad policy to examine before patent issued, especially without any reference [2451] to the land office, and I ask you whether that policy was the same policy which you had in mind when you, on December 7, 1904, said to Mr Bancroft in your letter, “and it seems, for reasons of policy regarding these certain unpatented lands, that it will be best not to execute that lease.”

A So far as I know, it was not a fact, and I have nothing to do with that policy.

Q What policy did you refer to?

A I just explained in my former answer.

Q That is, the policy I mean, what policy with

reference to unpatented lands was it that you referred to?

A I have no policy with regard to unpatented lands.

Q Well, you used the expression, "and it seems for reasons of policy regarding these certain unpatented lands;" that is your very expression. What did you mean by that?

A Possibly that didn't express—I don't—I can't say with absolute certainty just what I was thinking at that moment, but the idea that I am trying to get clear is that the policy was not anything of mine regarding the unpatented lands, but between our two departments, letting Mr Eberlein do his own work; whether that was exactly the point in the conference, I am unable to say.

Q That letter was based on the conversation that you had just previously had with Mr Eberlein?

A Yes sir.

Q And in that conversation Mr Eberlein had expressed to you his belief as to the hazard of making public such a lease, had he not? [2452]

A Probably had, according to that paper.

Q And that hazard referred, of course, as you understood it, to these unpatented lands, as to which the patent hadn't yet been issued; you clearly understood that, didn't you, Mr. Dumble?

A It is so stated, I think.

Q Now, you yourself believed, did you not, at that time, that it was best not to execute that lease until the patent was issued, did you not?

A Personally I didn't think it made a bit of difference.

Q And so you used the language—

A But I deferred to his wishes in the matter.

Q Just a moment. So you used the language, did you not, because of that, that it was best not to execute that lease for the present, or at present; that is what you had in mind, wasn't it, Mr. Dumble? Be fair.

A My answer is made in that. I thought you were through with your question.

Q Yes. I wanted your answer to that question.

A The answer is just as I have made it there, complete, as I believe.

Q That is, you think you have answered the question?

A I think I have answered the question; yes sir.

Q Now, in what respect did Mr Eberlein, in his talk with you, Mr Dumble, believe that it was hazardous to execute that lease at that time?

A I don't remember. [2453]

Q Does none of this matter which I have been reading to you here for the last half hour refresh your recollection as to what was in that conversation?

A My mind is an absolute blank regarding that conversation.

Q Is your mind in the same condition, Mr. Dumble, with reference to your conversation with Mr. Stone about pressing the selection of these lands, as he has stated?

A I never met Mr Stone at all in connection with this, so far as I know.

Q When Mr Stone said in his testimony, under oath, that you came in and pressed the selection of these lands for reasons best known to yourself, namely, because you believed them to be petroleum, did he misstate the truth?

A I did not see Mr Stone in regard to the selection of any lands in 30-23.

Q Well, I have stated to you what he testified? Did he misstate the truth?

A I have made my statement also.

Q What is that?

A I say, I have made my statement also.

Q Well, is his testimony true, that you did come in and urge the selection of these lands?

A I did not go in or make the selection of the lands.

Q Did you have any conversation at all, at any time before the issuance of this patent, with George A. Stone about these lands? [2454]

A I don't remember ever to have spoken to George A. Stone in regard to these lands.

Q You say you don't remember. Might it not be true, now, as you now have your memory refreshed, Mr. Dumble, that you did actually go in there and urge a selection of those lands to Mr. Stone and have now forgotten it?

A No sir.

Q Did you discuss the selection of these lands

with George A. Stone before the date of the patent, December 12, 1904.

A Not to the best of my recollection, unless—not—I did not discuss with him the selection of these lands. What conversation there may have been after these maps showing that they had selected them and they were trying to get the patents on them—that was October 8th that those maps came—I can't say; but certainly nothing to—I don't remember having seen or spoken to him regarding them even at that time.

Q Now, Mr Dumble, is it not possible, now, after having your mind refreshed, your recollection refreshed, from what I have read to you, and the testimony of Mr Stone, that you did discuss with Mr Stone these lands and the acquisition of the lands by the railroad company, before the patent was issued, December 12, 1904?

A I don't remember ever speaking to any one but Mr Eberlein concerning them.

Q You spoke to Mr Eberlein concerning them?

A This conversation in room 71 is the only thing that there was, as shown by documentary evidence.
[2455]

Q Now, didn't you think at that time, when you discussed it with Mr Eberlein, Mr Dumble, to be perfectly fair and candid, now, that it was an extremely hazardous thing to select these lands, in which you knew there was an anticlinal structure as early as 1903, and which you knew had been examined by Mr Owen—didn't you regard it as extremely hazardous

at that time to select those lands under an agricultural grant?

A Personally I had nothing to do with the selection. My idea of them as oil lands was that they were of no value whatever, and that they had no value except as agricultural lands. Mr Owen's examination of them was a very brief reconnaissance, but our idea from the beginning was that they were not oil territory.

Q That is, you thought that you would be safe in taking those lands over to the company under an agricultural grant?

A I was handling the oil-producing end of the business. It didn't matter to me, in that connection, whether they were patented to the company or were not patented to the company, and it was a matter that was entirely outside of my business in any way.

Q Now, Mr Dumble, by that you mean that you didn't feel charged with any responsibility as to the making of the affidavit necessary to support the application for the patent, that is, the non-mineral affidavit?

A I had nothing to do with it. [2456]

I felt no responsibility in respect to that matter but I would have been willing, I think, at that time to have made a non-mineral affidavit, provided I had examined it and felt about it as I did feel about it. I had not examined it. I did not know Mr. Stone in 1903 and therefore it is not possible that I went to Mr Stone unknown to Mr Eberlein and advised him to select those lands as promptly as possible because

I believed them to be petroleum lands. To the best of my knowledge and belief I did not talk with Mr Stone prior to August 31st, 1904, about the selection of those lands in suit. I never at any time had any knowledge of any application being made for these lands or anything about such application until the maps were received in October, 1904. I know Mr Kruttschnitt fairly well and have often met him in business and in a social way. I don't recall the time when Mr Eberlein discharged Mr Stone. Sometime during last year I heard something about Mr Stone writing a letter to Mr Kruttschnitt in 1908 in which he threatened that unless he was re-in-stated in his position that he would disclose the irregular selection of these lands to the Attorney General or lay the matter before the public preses. I may have gotten this information from the transcript but that is the first I ever heard of it. I know James M. Shaw, a witness produced for the defendant in this case. He was employed by the Rio Bravo Oil Company. He was, first, field foreman, I believe at Sour Lake, and afterwards assistant superintendent and superintendent of the Rio Bravo Oil Company. Mr C. H. Markham, to whom I [2457] have referred in my testimony was at one time President of the Rio Bravo Oil Company, and I think at the same time was Vice-President of the Texas and New Orleans Railroad, at least he was in charge of that railroad. The Texas railroad was one of the Sunset Central lines in Texas. By the Sunset I mean the Atlantic system of the Southern Pacific Company, and Mr. Markham was in charge

of the Texas division, as I remember, including all those lines. There was a close business relationship between the Rio Bravo Oil Company and the Texas and New Orleans Railroad Company. The Rio Bravo Oil Company was organized to handle the oil business for the Southern Pacific Railroad Company in Texas. On one or two occasions Mr Shaw, Mr Markham and I visited the oil fields in Texas while Mr Markham was in charge. We went there frequently. Mr Markham was a very energetic man and he was liable to call on me most any day to take a trip with him in his private car into the oil fields. Mr. Thomas J. Griffin was employed by the Rio Bravo Oil Company and was under my instructions. I know nothing about his being Vice President of the Spindletop Power Company prior to that time. We received a great deal of oil from the Spindletop Power Company. They were delivering oil everyday, I think. I don't know anything about how Mr. Griffin was regarded. I thought his work in a general way fairly good. I let him go easily without having any words with him in any way. My relations with him were pleasant even after he left. I never had any trouble with him. I didn't go to Welsh with Mr Markham during the time Mr Griffin was there. I couldn't have had any conversation at that time with Mr Markham as he was in San Francisco. Mr Markham on that occasion [2458] did not say that he didn't like the way that fellow Eberlein is acting in Frisco and that he was not going to make the necessary affidavits to certain lands in California. I did not say

on that occasion that I was going to San Francisco in a few days and if Mr Eberlein didn't make an affidavit I would or see that he did it. I did not say on that occasion that I thought I could bring enough to bear on him that he would only be too glad to make the affidavit. I knew Mr Stephens. He assumed charge of Treadwell's operations before I did. He was between Treadwell and me. The voucher which you show me is one produced by the defendants' in this case and is from the files of the Rio Bravo Oil Company, of which I was then Vice President. This voucher reads "Paid Vouchers, Book of the Rio Bravo Oil Company, in volume dated from October 6th to December 18th, 1903, treasurer's No. 1047;" this voucher is dated October 15, 1903. This voucher refreshes my recollection that the Spindletop Power Company up to October 12, 1903, had delivered ninety thousand dollars worth of oil to the Rio Bravo Oil Company, of which I was Vice President. The voucher last referred to was read in evidence and was in words and figures, as follows, to wit: [2459]

FORM 6

DEPARTMENT No.....AUDIT No. 1114

TREASURER'S No. 1047

HOUSTON, TEXAS, Oct. 15th 1903

RIO BRAVO OIL CO.,

To Spindle Top Power Co. Dr.

Registered in

Beaumont, Texas.

October 1903

1903

Oct. 15	For oil delivered at Sour Lake to Oct. 12th, 1903, as per statement of J. M. Shaw, Field Manager, 361336.4 bbls @ 25c	90334.10
	Less cash advanced and interest on notes	25507.39
		<hr/>
		64826.71
	Less payments on a/c oil delivered	61477.93
	Balance due 10/12/03	3348.78
	Amount advanced on oil to be furnished in accordance with terms of contract	5447.36
		<hr/>
		8796.14

(Purple Stamp) CREDITED to TREASURER No. 249 By CASH ABSTRACT.

(Red Stamp) THE SOUTH TEXAS NATIONAL BANK. PAID OCT. 17 1903. HOUSTON, TEXAS.

Charge:

Oil Purchases—	3348.78
Spindle Top Power Co.	5447.36

(Red Stamp) Houston, Texas, Oct. 15 1903 190

If presented within 30 days from date

hereof, this Voucher when properly dated and receipted, becomes a "Sight Draft" without exchange, on

B. C. CUSHMAN, Treasurer,
HOUSTON, TEXAS.

Payable at the option of the holder at the

COMMERCIAL NATIONAL BANK,
HOUSTON, TEXAS.

EXAMINED BY

J. W. McCUTCHON. [2460]

APPROVED: I hereby certify CALCULATIONS
that the above CORRECT:
account is correct:

J. W. McCUTCHON

The above account

APPROVED: APPROVED: has been examined,
(Purple Stamp) C. H. Markham found correct and
E. T. Dumble, President B. is hereby approved
G. T. C. for payment.

Vice President

C. B. Seger.

Secretary.

RECEIVED, October 16th 1903, from RIO BRAVO
OIL COMPANY, xxxEight Thousand Seven Hun-
dred & Ninety Six & 14 DOLLARS.

(Rubber Stamp) SPINDLE TOP POWER
COMPANY,

Per M. J. Bass.

(A) Treasurer.

NOTE,—The Receipt to this Voucher must be dated and signed by the party in whose favor it is made, or when signed by another party, the authority for so doing must in all cases accompany it.

(Endorsed on back) (Red Rubber Stamp)

Previous endorsements guaranteed.

Pay to the order of
SOUTH TEXAS NATL. BANK.

SOUTH TEXAS NATL. BANK.
AMERICAN NATIONAL BANK,
BEAUMONT, TEXAS,
HOUSTON, TEXAS.
CHAS. H. STROECK, Cashier.

The Rio Bravo Oil Company had a contract with the Spindletop Power Company in connection with the moving of the plant of the Spindletop Power Company from Spindletop to Sour Lake. I don't remember positively the terms of that contract, but all of these vouchers are part and parcel of the fulfillment of that contract. This voucher No. 1082 was approved by me as Vice President. It is dated October [2461] 20th, 1903, and was cash advanced account fuel oil delivered during October, 1903, \$2000. This was on the authority of C. H. Markham, President, 10/20/03. While the voucher states that the money was advanced it was simply a payment made during the month for oil delivered, it being the custom to pay for oil once a month and usually about the tenth of the succeeding month. This voucher, treasurer's No. 1163, reads "Cash advanced account fuel

oil to be delivered on contract, authority Mr C. H. Markham to Spindletop Power Company." This cash was advanced by the Rio Bravo Oil Company to the Spindletop Power Company for fuel oil to be delivered on contract on the authority of Mr C. H. Markham. It was approved by me and the money was advanced. It bears the stamp of my name with the initials of my chief clerk. Treasurer's No. 1216, is a voucher dated November 9th for cash advanced Spindletop Power Company account fuel oil to be delivered \$2,000. This was made on the authority of C. H. Markham and approved by my office but not signed by me. Mr C. B. Seger was the Secretary of the Rio Bravo Oil Company during these proceedings and I recognize his signature and that of Mr Markham on this voucher. This treasurer's voucher No. 1261 is dated November 16th, 1903, and is on account loan the Spindletop Power Company as evidenced by note Spindletop Power Company to Rio Bravo Oil Company of November 16, 1903, made in accordance with the terms of contract of November, 16, 1903, \$6000. This was approved by the Rio Bravo Oil Company by C. B. Seger, Secretary, and Mr. C. H. Markham, President, and by my office but not signed by me [2462] personally. I recognize on this voucher the signatures of Mr Markham and Mr Seger. The \$6000 mentioned in that voucher was receipted for by the Spindletop Power Company by M. B. Bass, president. I would surely conclude that this money was advanced. I know that there was a contract between the Spindletop Power Company and

the Rio Bravo Oil Company made by Mr Markham as president and Mr Bass as president. Voucher No. 1283 of the Rio Bravo Oil Company reads: "November 23, 1903, for cash advanced account fuel oil to be delivered \$3000, charge Spindletop Power Company". That voucher was approved by C. B. Seger personally. I think the signature of Mr Markham is stamped on the voucher. Mine is not but it was approved by my office. That money was advanced. M. B. Bass, president. Voucher No. 1436 of the Rio Bravo Oil Company to the Spindletop Power Company, debtor, reads: "December 15th, 1903. For cash advanced to cover order of J. W. Swain, agent, for pumping charges on oil now in our storage tanks and this day bought by this company as per telegram from L. W. Brown, December 15th, 1903. The balance due will be paid later when the final rendering of the opening account with you will be made \$3,000." That was approved by Mr A. D. McDonald for Mr Seger and by Mr C. H. Markham and by my office. I did not sign in person. Mr McDonald is now the auditor of the Southern Pacific Company, defendant in this case. He was auditor at San Francisco but has been transferred recently to New York. I don't know if he is auditor at the present time. Mr McDonald has been the [2463] auditor of the Southern Pacific Company in this case up until the first of January. Mr Seger is connected with the Union Pacific Railroad, I understand, and Mr Markham with the Illinois Central. Money was paid to the Spindletop Power Company as appears by this receipt signed

"Spindletop Power Company by M. B. Bass, President." Voucher No. 2021 of the Rio Bravo Oil Company to the Spindletop Power Company, debtor, Beaumont, Texas, reads: "February 18, 1904. Fee paid clerk of Harden county, Texas, for revording deed of trust from the Spindletop Power Company to Maxwell Evarts, trustee, for the use of this company, \$7. Charge oil purchases. This amount was deducted from payment for oil delivered, voucher No. 1844." That voucher was approved by A. D. McDonald for the secretary, and by F. L. C. for Mr Markham and G. T. C. for myself and that amount was credited to the Spindletop Power Company. I should say from these vouchers that during the year 1903 the Spindletop Power Company had business with the Rio Bravo Oil Company in excess of one hundred thousand dollars.

Q I call your attention to a statement made by the witness Charles W. Eberlein, who was acting land agent of the Southern Pacific Railroad Company, defendant, at the time it applied for patent to the lands in this suit, at page 1993 of the transcript, in which he was commenting on the protests which he had made because of the activity of you and your men in examining unpatented lands, and particularly with reference to what suspicion he might [2464] have had in his mind as to your knowledge of the mineral character of those lands at the time you wrote the letter of September 3rd, 1904, to Judge Cornish. He says, "I think it is a very reasonable thing for any man charged with the duties that I was charged with, the

duty of making a non-mineral affidavit on the very best information he could obtain, as I did, to have the feeling that some man examined those lands and charged the company with notice, but without charging me with notice." Now, does that refresh your recollection at all as to your conversation with Mr Eberlein, which formed the subject of your letter to Mr Bancroft of December 7, 1904?

A The reading of that in the transcript was the first I have ever heard of it.

Q Well, the question is whether it now refreshes your recollection, more particularly as to what occurred in that conversation which you had with Mr Eberlein?

A It had nothing to do with my conversation, so far as I know.

Q Is your mind still a complete blank upon your conversation with Mr Eberlein?

A I don't remember anything of that at all.

Q I say, is your mind a complete blank still on the subject of your conversation with Mr Eberlein in room 71?

A It is, along all lines that have been brought out, so far.

Q Didn't Mr Eberlein at that time tell you in that conversation that you were doing a very dangerous thing in examining these lands in suit before they went [2465] to patent, and getting reports of their mineral character?

A He did not.

Q Especially at a time when he had made a non-mineral affidavit?

A He did not, for the simple reason that I hadn't made such examination.

Q Now, I read from the same page further, testimony of Mr Eberlein: "However, taken in connection with the protests I made thereafter, I may have had a feeling that Mr Dumble had knowledge of lands which I didn't have," Does that refresh your recollection as to what occurred in Room 71 with Mr Eberlein?

A No sir.

Q That meeting which you had with Mr Eberlein is the same meeting which you referred to in Exhibit 148 of the letter of March 15, 1907, when you were calling attention of Mr Eberlein—

Mr Lewers—What page is that?

Q By Mr Mills—(Continuing)—to refresh his recollection of knowledge of the K. T. & O. Company lease, was it not?

A What is that?

Q Page 5976. I will read it to you. This is your explanation in the record—or in the letter; (Reading) "Early in December we had a further conference on the matter, and you explained that you were rushing certain lands for final patent, and that the immediate execution [2466] of the lease showing our idea of what were oil lands might interfere with you, and we agreed to defer the execution until that danger was past." That was the same conversation was it not?

A That was the same conversation, yes sir.

Q Now, how did you know, Mr. Dumble, that Mr. Eberlein was rushing these lands in suit to patent?

A I said he explained in this letter

Q Well, how did you know that Mr Eberlein was rushing these lands in suit to patent?

A The only knowledge I had was that given here, he explained to me that they were doing so.

Q Mr Eberlein explained that to you?

A That is what he states, yes sir.

Q Now, what did he say about rushing the lands in this suit to patent at that time?

A I can't tell you.

Q Don't you recall anything about that at all?

A I don't recall a word of the conversation. It made so little—

Q Give the substance of it, Mr Dumble.

A I can't give you any further than this, because it made so little impression on me at the time that I have never been able to recall it.

Q Well, but that occurred in December, that conversation, occurred in December, 1904?

A Yes.

Q Prior to December 7th?

A Yes. [2467]

Q And yet you remembered enough of it Mr Dumble, so that you recalled it to Mr. Eberlein about three years later March 15, 1907?

A I had the files in front of me just as I have them now.

Q Well, what files did you have which referred to Mr Eberlein's rushing these lands to patent?

A Well, the statement there, "rush" is made—may have been stronger than he used at the time, as far as I remember now. I don't remember the term he used, but in writing this letter—

Q Well, how do you come to recollect it three years after the event, and you now say that your mind is a complete blank on it?

A I say in regard to the words that were used.

Q I don't care anything about the words that were used. Give the substance of the conversation.

A The substance is given just there, as far as I have any knowledge of it.

Q What made you recollect that he was rushing these lands for patent for three years, and that you now forget it when I ask you about it?

A I have not forgotten anything that is here. I am giving you the same data exactly that I had at that time.

Q Now, wasn't it a fact that you, yourself, were attempting to have Stone rush these lands to patent, whether Mr Eberlein made objection or not?

A It was not.

Q You have stated, Mr Dumble, that the Kern [2468] Trading and Oil Company treated the lands which were embraced in the proposed lease of August 2nd, 1904, and which remained unexecuted by the Southern Pacific Railroad Company as appears by the evidence, until December 12, 1907, as property in which they had some estate or interest; they were

mining and extracting oil and operating those lands for oil purposes; that is true, isn't, according to your own evidence?

A They treated them as though that lease had been executed.

Q Now, you knew at that time, did you not, from your own official information as a railroad man, and if not by that, by conversations with Mr Markham, who was an official of the Southern Pacific Railroad Company, that Mr Eberlein was the only man empowered by the board of directors of that company to alienate lands belonging to the Southern Pacific Railroad Company?

A I did not.

Q And you concurred in Mr Eberlein's wishes in delaying the execution of the lease until the patent could be issued? By that you knew, didn't you, Mr Dumble, that Mr Eberlein was the only one in authority who could execute legally that lease of August 2nd, 1904?

A I don't know that I understood it in that way.

Q Well, how did you understand it?

A So far as I am aware, I had no definite knowledge of the exact authority Mr Eberlein had in that regard; I simply knew that he had to sign leases of that character, [2469] but it was my understanding that they were subject to the management—

Q Well, Mr Dumble, you believed, didn't you, from your knowledge as a man of affairs, a man with considerable railroad experience, and as a scientist, and at the head of the oil producing department of a

great railroad company, that it was necessary to have some legal instrument in order to operate those lands, didn't you?

A Certainly.

Q And yet you have stated that the only lease that was ever executed was the lease of December 12, 1907; isn't that true?

A As I understand it, if the lease of 1904 was executed by Mr Markham signing it.

Q Oh, you thought that one party to a contract could execute it, and that would make it a legal instrument?

A Where the same party was the head of both companies, I should think so.

Q Well, Mr Markham was not empowered at that time to execute a lease for the Southern Pacific Railroad Company, was he?

A That I don't know.

Q Well, didn't you know that Mr Markham had presented that lease to Mr Eberlein for execution, and that he refused to execute it?

A I did not.

Q And didn't you agree with him as late as December 7th, 1904, that it ought to be delayed, that Mr Eberlein was right in delaying it until the patent was [2470] issued?

A December 4th was considerable after Mr Markham had signed it, though.

Q Mr Markham, according to the testimony in this case, and according to the proposed lease which

is in evidence, signed that lease on August 2nd, 1904, for the Kern Trading and Oil Company?

A I remember now it was at that time, yes.

Q And handed it to Mr Eberlein to be signed on behalf of the Southern Pacific Railroad Company, and you knew that Mr Eberlein had refused to sign that lease?

A Later.

Q Yes. Now, according to your idea, then, the Kern Trading and Oil Company were operating the lands, as you say, from April, 1903, until December 12, 1907, without any instrument at all?

A The Kern trading and Oil Company was simply a department of the railroad company for handling the fuel oil.

Q Oh, it was a department of the railroad company?

A Made into a subsidiary company for convenience of accounting on management.

Q That is, it was—

A To take the—

Q Pardon me. It was a department, you say, of the Southern Pacific Company?

A It was the fuel oil department of the Southern Pacific Company.

Mr Lewers—Mr Mills, I think you inadvertently [2471] made the statement, “April 1st, 1903”; the testimony is April 1st, 1904.

Mr Mills—Yes, change that to 1904.

Q Now, Mr Dumble, the Southern Pacific Company did not pretend to own those lands did they?

A The Southern Pacific Company operated Section 3 in the Kern River field up to the time—from the time of its—of the first well that was put down on it until the time that the Kern Trading and Oil Company took it over.

Q But these lands as you have testified fell within the grant to the Southern Pacific Railroad Company?

A Yes sir.

Q You understood that, didn't you?

A Certainly.

Q Now, how do you account for the fact that the Kern Trading and Oil Company, which you say was a mere department of the Southern Pacific Company, had any authority whatever upon the lands of the Southern Pacific Railroad Company and mined and extracted oil for three or four years, without any legal authority?

A I don't know that that side of it ever appeared to me. I was instructed by the officers of the company to do the work, and I did it.

Q And wasn't that about the way you had these lands examined, was by instructions, and you paid no further attention to it?

A No sir. [2472]

I had nothing to do with any instructions in regard to the examination of any lands whatever that were not company lands. I did not regard as company lands, lands which would inure to the railroad company if they applied for them under legal application. Referring to my letter to Mr Eberlein of March 15th, 1907, in which I state "and that the im-

mediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed", when you ask me if I did agree in that conversation with Mr Eberlein to avoid that danger by deferring execution of the lease my answer is "We agreed to defer the execution of the lease as is stated there". I recall that in 1907, when I wrote that letter as I have the evidence in my letter to Mr Bancroft that Mr Eberlein had explained to me that he was rushing these lands in suit to final patent, and when you ask me if I recalled that from my mind and not from anything in my files, my answer is "I wrote according to the impression I had at that time and what I stated in that letter was my impression of Mr Eberlein's conversation at that time. The Kern Trading and Oil Company, while it was trespassing upon the lands of the Southern Pacific Company during the period from April 1, 1914, until the lease was executed, December 12, 1907, paid royalty to the Southern Pacific Railroad Company for every barrel of oil ever produced. I know that of my own knowledge as I signed the vouchers for it. [2473] Myself and my office has signed every voucher. That proposed lease didn't reduce any royalty whatever. The railroad company had been receiving under some private leases a one-fifth royalty. Some of the leases were one-sixth and some were one-fourth. Only on lands other than those already leased was there a one-tenth royalty. The lands already leased were taken over subject to the terms of those leases.

The Southern Pacific Railroad Company received at all times the royalty as agreed upon by its original lessees, or such modifications as had been made with the consent of the Southern Pacific Land Department and I surely meant to say that the Land Department of the Southern Pacific Railroad Company from April 1, 1904, until December 12, 1907, when that lease was executed by Mr Markham and Mr Willcutt, for both companies, consented to the exploitation of their lands by the Kern Trading and Oil Company. Mr Eberlein was at the head of that department all that time. I do not know other than what may appear in these papers, that Mr Eberlein recognized the rights of the Kern Trading and Oil Company upon any lands within that grant during that entire period of time and that he instructed his clerks not to recognize the rights of the K. T. & O. to go upon those lands. I have read Mr Eberlein's testimony and I believe he did so testify and although he has testified to that under oath I still say that I know nothing of his not consenting. We went on and did the work and made our reports regularly direct to his office and when I just stated that the Land Department [2474] consented I was speaking of the changes of these leases, alterations in rates of royalty. I don't know personally that Mr Eberlein never recognized any lease between the railroad company and the Kern Trading and Oil Company during the time of his administration of that land grant. I have since learned it here and have seen it in the sworn testimony of Mr Eberlein. Mr Kruttschnitt was assistant to the President

of the Southern Pacific Company at that time and it was under his instructions that the operations of the Kern Trading and Oil Company were begun and carried on. When Mr Markham came in it was continued under him. The lease was prepared and submitted and I carried out the instructions given me with regard to it. It was not exactly my understanding, late in the month of March, 1907, that all the operations of the Kern Trading and Oil Company upon those lands had been done over the protest of Mr Eberlein as such agent and upon the instructions of Mr Kruttschnitt and Mr Markham without entering into any legal form. While the lease was held up in December, 1904, I was not aware that it had been held up entirely. I didn't find it out until 1907 when I heard it. In 1907 when there had been no legal form entered into by which the Kern Trading and Oil Company was authorized to operate the lands of the Southern Pacific Railroad Company I don't know that I knew it had been done over the protest of Mr Eberlein excepting so far as this correspondence might mean something of that kind. I wrote to Mr Eberlein and told him on March 15, 1907, "In the meantime, however, under instructions from Mr Kruttschnitt and Mr Markham, the Kern Trading and Oil Company, on April 1, 1904, took charge of [2475] entire oil situation including lands covered by this lease and has operated under the terms of the understanding which was to have been put in legal form long ago". That letter was written after I had learned that that lease was in existence. I know

that the Kern Trading and Oil Company had been operating the lands of the Southern Pacific Railroad Company without any formal lease at all for that period of time and when you ask me if I don't know as a matter of fact of my own knowledge that Mr Eberlein had refused to recognize the lease, and that was evidenced by the pipage charges, royalty oil, which was sent into his office, my answer is "I don't know that that was in anywise a failure to recognize the lease. There was no mention of pipage charges in the lease. I did not know that that was the only evidence that Mr Eberlein had that somebody outside of his department and without authority, was exploiting those lands because there were monthly reports made to Mr Eberlein of the production on all lands that were being handled by the Kern Trading and Oil Company and when you ask me if I didn't understand at that time from what I knew of the operations of the Kern Trading and Oil Company, that without the formality of a legal instrument authorizing it to do so the Southern Pacific Company exercised step-fatherly care over the Southern Pacific Railroad Company lands and treated those lands as its own during the year 1903-1904, my answer is "I don't know what they did with the lands generally. The relations of the two companies were unknown to me. I am inclined to think that in the very beginning I personally did not know the difference between [2476] the Southern Pacific Company and the Southern Pacific Railroad Company and when I was authorized by officials of the Southern Pacific Company to go

out and examine lands belonging to the Southern Pacific Railroad Company I treated those lands as belonging to the Southern Pacific Company interests at least. That is to say those lands representing the Southern Pacific Company's interests, and they had an interest in those lands of some kind I suppose. I have identified the letter written to me which was dictated by George A. Stone, sending me a list of lands in this case. That letter was dated October 8th and covered lands that we had already been over. We had the map of 1902 showing what were company lands and the examination of company lands was certainly confined to what was shown there on the map submitted at that time. That map didn't show the lands in this suit in the ownership of either company. On March 25, 1903, Mr Owen sent me the map marked Defendants' Exhibit 157 which showed an anticline running across sections of land in this suit together with the even sections interspersed. The entire examination of that field was between February 3rd and the time of this letter. When I saw that anticlinal curve delineated across the lands in suit I knew that Mr Owen had made reconnaissance of them only. It shows on the map that he at first ran the anticline from section 23 in 30-22 in a southeasterly direction to join on section 5 of 31-23 and had afterwards changed that by pasting a slip of paper across it and by more careful examination had run the anticline across the township and through the lands in this suit. Mr Owen had made a careful [2477] enough examination of the lands at that time to be able to

show me where the the anticline was across the unpatented lands which form the subject of this suit and when you ask me from what I have since learned after some ten years of rich geological experience added to what I had in Texas, if Mr Owen made a pretty fair examination of the lands in this suit at that time and fixed the anticline about where it is now, my answer is "Mr Owen was a very remarkable man and he was about as correct as you find them and he fixed the anticline in there correctly" and when you ask me if all the geologists of the Southern Pacific Company since that time for the last ten years having occasion to examine that anticline, have had no reason to change the position placed there by Mr Owen, my answer is "the anticline is on the ground; there is no reason to change it on the map. I have not had occasion to change the map a great distance. It is as accurate as a map will allow. When I said that Mr Owen was a very remarkable man I meant that he had a faculty of carrying underground conditions in his mind more perfectly than any man I ever met and I rated him pretty highly as a geologist up to the time of his death. I want to call attention, though, to the letter in connection with that map in which he says "there is but one oil horizon in this field." In the trips which I took over this land, I mean the oil fields of the West side and Kern River, at the time I went through with Mr Treadwell, we were there two days, just simply a trip in a wagon over the territory. Before Mr Owen went in there my recollection is I had been in there parts of two

days; the first trip and the next trip was after Mr Owen had gone [2478] to California. The second trip though I made was with Mr Treadwell. That was the trip in which I went over that territory. Referring to Defendants' Exhibit 117, my letter of December 4th, 1902, to Mr Kruttschnitt, I said "Present developments in the San Joaquin valley indicate clearly that there are at least two distinct series of oil beds", by that I meant as I stated in the letter, that the oil beds of the west side of the valley were different and a reparate set from those which were found in the Kern River field. I thought there was one set reaching the whole length of the valley inclinding the Sunset, Midway, McKittrick, Temblor, Antelope, Kroninhagen and Coalinga fields.

Q At that time you knew that all of the lands that could be had been reserved from sale, for oil purposes?

A Acting on the—taking my information from that map.

Q Yes. And you so stated to Mr Kruttschnitt?

A Yes sir.

Q That, so far as can be, all of these lands are now reserved from sale?

A Yes sir.

Q Now, you stated in that letter, "I propose to take up their examination in a systematic way during the coming year in order to determine as far as can be done from surface indications and geological structure where oil is to be expected in this region." Did you regard surface indications and geological

structure as the proper [2479] criterions on which to determine where oil would be found at that time?

A They give the best indications we could have of it.

Q Yes. Now, what do you regard as "surface indications", or what did you at that time?

A Regarded those asphalt beds at McKittrick.

Q What else?

A Those were the principal surface indications, outside of geological structure. Actual occurrence of — or occurrence of actual oil seeps, is regarded as being one of the criteria. It is not always so.

I regarded a live oil seep as one of the surface indications. I have since had to change my mind but at that time I did. There were several things that I regarded as favorable geological structures. In Texas "domes" we thought to be the most favorable in structure. That was from my experience in Spindletop and the Texas fields and at other places the most favorable structures were the slopes that were not too steep to carry the oil too far away too rapidly along some anticlines, and taking it in connection with other things I regarded an anticlinal structure as a favorable geological indication. At that time, In 1902 I think, if I had found an actual oil seep in a break in section 32, 30-24 and the same was taken in connection with the anticlinal structure found by Mr Owen I would have regarded the lands in that vicinity in the Elk Hills as favorable to expect the occurrence of oil there. I don't know that Mr Owen had found what he regarded [2480] as an oil seep there in

section 32 of 30-24. I think I can say positively that he did not tell me so. I made no examination of the Elk Hills country at that time but I made examination of lands quite a distance to the West of there, practically five miles to the west but not in or near oil territory according to the map of Mr Treadwell. I stated that that map shows reservations of land but I didn't say Mr. Treadwell had reserved them. I knew at the time that I got that map that these lands had been shaded by somebody and that they showed that they were shaded because they were to be reserved on account of being in or near oil territory. That is what the map states and I knew that at that time and the statement on the map shows that the lands in this suit were entirely surrounded on every side by lands which were shaded as being in or near oil territory. That is the map which I said that I took from Mr Owen and which had been furnished by the Land Department of the Southern Pacific Railroad Company to him. That map was furnished to Mr Owen at his request under my instructions. Early in September, 1902, the Land Department of the Southern Pacific Railroad Company had marked and shaded for reserved lands from sale all the lands which the company owned, entirely surrounding the lands in this suit and many others as well because of it being in or near oil territory. I had regarded for some time surface indications and geological structures as favorable indications for the occurrence of oil as those are the usual indications for the occurrence of oil. I wrote a pamphlet entitled "The

Oil Deposits of Texas" which was published in [2481] The Houston Post of January 20, 1901. I wrote it at the time or just after the bringing in of the Beaumont well I think, or the Spindletop well, and that article applies to the cases in Texas. I recall using this language in that paper:

"It is not my purpose, however, to bring up 'might have beens', but to state a few facts regarding the subject which appears to be most absorbing just at the present moment—the oil deposits of the coastal slope.

So much has been printed of late years about artesian water and its manner of occurrence that I suppose every one understands that it does not exist in underground rivers and lakes as we find it on the surface, but in beds of sand, occupying the minute spaces between the sand grains. Occasionally, of course, there may be a cavity of more or less extent, but these are unusual, to say the least. The occurrence of oil deposits is exactly similar. Oil simply impregnates the sand beds, where it has collected through the process of distillation and condensation during untold years. Whether it was originally derived from the decomposition of marine animal life, or plants, or coal, matters not. All have probably furnished material for it, and the nature of the material may be responsible for its being of an asphalt or a parafine base, but those are points for scientific inquiry; at present we are more interested in the where than the why of such occurrences.

The first thing to ascertain then is the location and

extent of such sand beds as may contain oil. In a general way this has already been done, and the details given in our [2482] various reports and papers, of which the following is a brief re-statement;

As we travel from the coast into the interior we pass over strips, or belts, of clays, sands and limestones of varying character and width. These are the exposed edges of numerous sheets, or beds, of these materials, which were laid down as sediments beneath the water which formerly covered the entire region. From these exposures they slope downward toward the gulf shore, and are overlain by later sediments; the edges of the older beds are therefore on the interior margin of the slope, and the latter succeed one after another coming toward the coast.

The outcrops of these beds from a series of belts approximately parallel to the present gulf coast, and borings show that the underground slope of the beds is from twenty to fifty feet to the mile more than the surface slope of the country; for instance the beds which occur at the surface around Hampstead were struck in the deep well at Galveston at less than 3000 feet.”? A little later on in the paper: “With the exception of the Corsicana oil, all of the horizons here mentioned are of the same general age and character as those in California, and they continue along the gulf coast well into Mexico. The oil-bearing portions of these beds bid fair to prove as extensive as any known, and are as yet practically untouched.” “The investigations of Dr I. C. White in the oil fields of Pennsylvania and West Virginia have proved that

the variety of asphaltum known as Grahamite is one of the surface indications of oil deposits." Then, referring still further [2483] along in the paper: "Still higher in the series, as we understand it, come the beds in which Beaumont has just encountered such a phenomenal supply. The conditions of the occurrence of these beds differ somewhat from those below, and we expect the finding of oil along the coast to be more indistinct basins than may be the case with the lower oils, the sands of which appear to have greater continuity and are not divided into lenticular deposits.

Whether or not any of these oil deposits can be struck at any particular locality is a question to be answered only after investigation of the surface conditions in the vicinity, or by actual boring. The surface indications are a guide where they exist, but oil may be sometimes found below when such evidence is apparently lacking, or would only be detected by an expert observer.

The success which has already attended the search for oil will certainly stimulate others to undertake similar borings, and the interest thus aroused will without doubt overflow into other channels and bring about the development of other mineral resources of the state which now lie dormant, largely because they are not properly appreciated or understood."

As a broad spread I compared it with the California conditions here, but I found later that there were numerous differences which have been discovered right straight along. I have always understood

that surface conditions, surface indications were what was needed as a rule in all investigations. [2484]

I have 2667 shares of stock in my name in the Eight Oil Company. I may have met Mr Thomas E. Klipstein, whom I believe is the Secretary of that company. On this map, Plaintiff's Exhibit AA, concerning which Mr Klipstein testified that the Eight Oil Company owned or claimed to own, all of the sections of land in township 30 South, 23 East, and in fact, all the lands which on this map are colored blue, I find that the sections which are colored blue are sections 20, 22, 24, 26, 28, 30, 32 and 34. This map shows that sections 17, 19, 21 and 29, which are lands involved in this suit, immediately adjoin section 20 of the Eight Oil Company's holdings. This map also shows that section 30 in 30-23 adjoins sections 19 and 29 involved in this suit and also that section 28 of the Eight Oil Company's holdings adjoins sections 21, 27, 29 and 33 involved in this suit. The map also shows that section 22 of the Eight Oil Company's holdings adjoins sections 15, 21, 23 and 27 involved in this suit. It also shows that section 34 of the Eight Oil Company's holdings adjoins sections 27, 33 and 35 involved in this suit. It also shows that section 26 of the Eight Oil Company's holdings adjoins sections 23, 25, 27 and 35. All these lands are in township 30 South, range 23 east. This map also shows sections 26, 30, 32 and 34 of 30 South, 24 East, as belonging to the Eight Oil Company. This map also shows that in the township immediately south of

township 30-24 the Eight Oil Company's holdings are section 4 and the north half of section 8. Referring now to township [2485] 31-23, the map shows that the north half of section 31 and the south half of section 32 belong to the Eight Oil Company and that the south half of section 4 in Township 32 south, range 23 east, belong to that company. I think I acquired my stock in the Eight Oil Company in September, 1909. I am not an officer or director of that company and have never voted my stock personally at an election of officers or directors of that company. I sent my proxy to Erwin Owen, son of Josiah Owen, for one election. Mr Josiah Owen during his life time also held stock in the Eight Oil Company. I am acquainted with Mr. S. P. Wible. He has stock in the Eight Oil Company. I understand Charles Haberkern also has stock in the Eight Oil Company. I never heard that the Eight Oil Company claimed any lands in 30-23. Individuals may have had lands in 30-23. I have been told so. I have no personal knowledge of a contest initiated by certain locators for petroleum and other minerals, which contest was backed by the Associated Oil Company, or at its instance, against the locators of the Eight Oil Company or their predecessors in interest or any person connected with the Eight Oil Company, on sections 24 and 26 of Township 30 South, 23 East, and section 30 of Township 30 South, 24 East. I may have seen about it in the papers and I may have spoken about it to Erwin Owen. My own knowledge of that contest was hearsay. I had no knowledge

that the Eight Oil Company had holdings in 30-23. I don't know personally that the lands that the Associated were on and made [2486] application for were in 30-23. I have not even that actual information. I did not have a conversation with Mr Wible and Mr Klipstein in the streets of Bakersfield and in the Southern Hotel after that contest was initiated by the Associated Oil Company or in its behalf, against the Eight Oil Company and its locators, wherein those men asked why the contest was initiated against these lands as I was the geologist of the Southern Pacific Company and presumably of the Associated Oil Company. I did not say that the Southern Pacific Company and the Associated Oil Company did not know of my interests in the Eight Oil Company and that I had kept it a secret. I had no meeting with Mr S. P. Wible in the year 1904 in my office in San Francisco in which we discussed the location of the even sections which the Eight Oil Company afterwards acquired or claimed to own in Township 30 South, 23 East. I did not at that time advise Mr Wible to take up these lands with the proper number of associates for their petroleum values. I did not then arrange that Josiah Owen should take an interest which should be sufficient to protect me and that he should hold my interest in those mineral locations in secret trust for me. I had no conversation with Mr Wible in my office in which I informed him that Josiah Owen had reported to me on township 30 South, 23 East, that the lands were mineral lands and that I thought it would be well to have these

even numbered sections located next to the railroad sections which are involved in this suit. I never [2487] told Mr Wible at any time that I would be glad to have the even sections in 30-23 located for their mineral values and that you would want to be in on it. I never discussed the even sections of 30-23 adjoining the lands in this suit with Mr Wible before September, 1908. I had absolutely nothing to do with the location of these lands nor did I advise the location of any lands in either township 30-23 or 30-24. I know nothing whatever about the formation of the Eight Oil Company at the time it was organized. I did not instruct Josiah Owen at the time it was formed to see that I got my share of the capital stock of the company.

Q Well, did you at any time tell him to get your share of the capital stock?

A I didn't have to tell him to get it. He—

Q He understood it?

A He—that the—My share was paid for as we went along, and it was fully understood.

Q Fully understood that he was to get it for you?

A I was to have my part of his shares.

Q Yes. And he took two-ninths, didn't he, of the capital stock of that company?

A Two-eighths, wasn't it?

Q Two-ninths, one-ninth for you and one-ninth for himself?

A No sir.

Q Didn't he?

A No sir. [2488]

Q Did you get an equal amount of stock with him?

A I did.

Q You knew those sections of lands were taken because of their suppose mineral values, didn't you?

A They were not taken, as I understood it, with the original Eight Oil Company.

Q Well, you knew that whoever did take them took them for their mineral values under mining locations, didn't he?

A They took them for their speculative value.

They did unquestionably enter those lands under the laws of the United States as mineral lands or they wouldn't have had them. The first locations by the men who afterwards formed the Eight Oil Company were in sections 31 and 32 of Township 31-23 and in section 4 of Township 32-23. I don't think the lands in 31 were sold. I think they were under contract to Captain Matson of the Honolulu Oil Company. These lands were located in 1908 and subsequently it was found that there were other locators and a compromise was made by which these locators who afterwards formed the Eight Oil Company, received the north half of 31, the south half of 32 and eighty acres of the southwest quarter of 4. 4 is in Township 32 South, 23 East. The others were 31-23. The contract with Captain Matson's company was that they would drill the wells necessary to patent these lands for one of the holdings of 31. The south half of 32 was sold to some one else under the same conditions. I had no hand in the arrangements personally but I am simply telling what I heard had

been done. Some [2489] arrangements were made with someone else for patents for eighty acres in section 4 on the same terms of one half the property. The work on 31 and 32 of 31-23 was completed and patents were gotten and the one hundred and sixty acres in 31 were sold. The parties who drilled these lands were drilling for oil and they certainly did get it. Those were oil lands. I think that the one hundred and sixty acres that was sold by the Eight Oil Company was sold for \$1500 an acre. The other land that was sold for probably as much. The total capital stock of the Eight Oil Company is \$32,000 at a dollar a share. I owned a one-twelfth interest. After these sales the Eight Oil Company declared a dividend. I don't know exactly how much I got but I think it was over \$20,000. All the holdings of the Eight Oil Company were taken up under the mining laws of the United States. I claim I have no information although I hold a one-twelfth interest in the total capital stock of the Eight Oil Company, that the Eight Oil Company claims to own any land in 30-23. My information is to the contrary and to the effect that the Eight Oil Company has no claim on any lands in 30-23. They have minerals claims in 30-24 which are in the Elk Hills, in the eastern part of the Elk Hills. I acquired my interest in the Eight Oil Company in this manner. In July or August of 1908 Mr Owen told me he had taken up these lands in 30-23 and 32-23 of which I have spoken and that drilling had been or was progressing in that part of the field; it would be necessary for the locators of these lands to get busy,

and asked me to go in with him in paying the assessments on those lands. I [2490] acquired my interest by paying every dollar as much as Mr Owen and exactly the same as every other man in the Company. I was not permitted to come in and share in those lands because of my geological advice and I did not begin advising Mr Wible before the patents issued in this case to take up the even sections in 30-23 adjoining lands in this suit. Not to my recollection did I ever discuss in my office in San Francisco before the fire in 1906 the mineral character of the even sections of land in 30-23. I don't remember ever having seen Mr Wible in San Francisco prior to 1906. I don't know when the suit was instituted or whether I was in Bakersfield at that time or not. I didn't know that the Associated Oil Company had any suit against the Eight Oil Company in 30-23. As far as I have any recollection there is no truth about Mr Wible telling me in Bakersfield that a contest had been started by the Associated Oil Company and of his asking me as the geologist of the Southern Pacific Company why that suit was started. I did not at that time tell him the Southern Pacific Company and the Associated Oil Company knew nothing about my holdings in the Eight Oil Company and I have no personal knowledge of the suit or contest referred to, brought in behalf of the Associated Oil Company against the locators. I never met Mr Klipstein but once and I didn't, so far as I have any knowledge, talk with Mr Klipstein at that time in Bakersfield about the mineral character of the lands in 30-23. At

the time I met him it was on the streets of Bakersfield. He passed where I was talking with someone else and I was [2491] introduced to him. I had just come in from the field. I was standing at a machine and he passed and somebody introduced me to him and that is the only time I have ever seen him. Section 30 in 30-24 is one of the sections which was located by the men who formed the Eight Oil Company. I recall having a talk about that section. I recall the fact that a suit had been brought involving that section and my recollection is that it was told me they had receiver's receipts or had done the work or something. I don't recall just exactly what it was. I did not in connection with that talk tell Mr Wible or Mr Klipstein that the Associated Oil Company and the Southern Pacific Company did not know of my connection with the Eight Oil Company and that I didn't want them to know it. I never kept it a secret from those companies. As a matter of fact they did know of my connection with the Eight Oil Company and there is a letter in the files to show it so far as the Southern Pacific Company is concerned. Mr. Klipstein at that time on the streets of Bakersfield did not tell me about the prospects of the Eight Oil Company over there in 30-23 and I did not say that they looked good. Mr Hunt that was associated with me and Mr Owen was from San Francisco. He was interested in the holdings of the Eight Oil Company and put up the same amount of money that Mr Owen and I did and received one-third of Mr Owen's proportion of the total stock. Mr Owen had two shares

and he divided it into three parts. The reason I had Mr Owen hold a share for me and not hold it in my own name was that it was not taken for me originally. I did not say to [2492] Mr Wible and have a thorough understanding that Mr. Owen was to hold my share for me. Mr Owen went into this matter without any consultation with me and I didn't know thing about it for sometime after he had gone into it. I have no personal information as to how many sections of land the Eight Oil Company or the locators who formed the Eight Oil Company, or their predecessors in interest, located in the Elk Hills. They probably located parts of four or five sections. I have not any personal information regarding it. I had absolutely nothing to do with the taking up of the sections in the Elk Hills. I didn't know anything of it until after it was done. I was not interested in acquiring an interest in the Eight Oil Company holdings which were mineral lands. I was not interested in acquiring the holdings of the locators who afterwards formed the Eight Oil Company. I was helping Mr. Owen out in these three locations down here in 31-23 and 32-23. I knew nothing about the work that had been in contemplation on 30-24 until after they had gone into it; didn't even know that the Eight Oil Company would handle it until some time after they did handle it. I didn't know that the Eight Oil Company and the locators were the same people. Mr Josiah Owen told me in 1908 he had interests in some locations in 30-24. When you ask me if I discussed with any member of the Eight Oil Company

or any stock holder of that company the contests now pending in the United States Land Office the mineral locations which formed the basis [2493] of the Eight Oil Company's holdings in the Elk Hills, my answer is "I don't remember anything positively except a conversation I had with Mr Wible, I think some time last summer, in which he was telling me or showing me some samples of Fuller's earth and oil. That is the only conversation I remember with regard to it. This oil and Fuller's earth came off of section of 30-24, the lands of the Eight Oil Company. The Eight Oil Company are attempting to acquire patent to these lands in 30-24 under the mining laws of the United States for Fuller's earth, as I understand it. The land was located for Fuller's earth and petroleum also. They have money enough in their treasury from the sales of land to put up any expense in respect to those contests. Mr Owen in his life time never discussed with me, prior to patent, the probability that the selection of lands which formed the basis of the patent in this suit would be rejected by the Land Office because of the petroleum bearing character of the lands and that the odd sections involved in that application would be thrown back and opened to entry as a part of the public domain. I have no personal knowledge, whatever, that Mr Owen told Mr Wible to watch out for the odd sections because undoubtedly the railroad company could not maintain that application because the lands were mineral in character. I have not any personal knowledge of the trip which was made by Josiah Owen and

Mr Wible to Visalia to look into the matter of the survey of the lands in this suit, or of the trip made by them to San Francisco to the Surveyor [2494] General's office in respect to the same matter. I don't remember of Mr Wible ever being at my office in San Francisco before the fire in 1906 or at any other time. He has not been in my office repeatedly and discussed the location of the even sections in 30-23 with me nor has he discussed their mineral character. I regard Mr Wible as a truthful man. I have always found him so. I never stated to Mr S. P. Wible that I had a report from Mr Josiah Owen on lands in 30-23, which show these lands to be mineral in character. Not prior to these lands in 30-24 having been taken up by the locators did I ever tell Mr Wible at any time that I had a report from Mr Josiah Owen showing that the lands in the Elk Hills in 30-24 were mineral lands. I think it was in October 1908 Mr Owen wrote me that he had found quantities of Fuller's earth in 30-24. Fuller's earth is a mineral but not a mineral in the strict sense of the term. Mr Owen did not mention any actual townships in his report but merely mentioned he had found Fuller's earth on two or three sections on the anticline north of the lake and the fact that he located the lands in 30-24 is evidence that that is what he meant. When you ask me if Mr Wible and Mr Klipstein last summer in Bakersfield had not "jumped" me about this contest of the Associated Oil Company, my answer is "I don't remember meeting Mr Klipstein in Bakersfield. Mr Wible may have jokingly said something

about it, I don't know, but never in any seriousness whatever. I don't remember even such a—And, anyhow, the matter was not true, because my connection with the Eight Oil Company is a fully known fact to the Southern Pacific Company. It was so known [2495] to that company before this suit was commenced. After this suit was started and shortly after the testimony of Mr Haberkern and Mr Wible and Mr Klipstein, associates in the Eight Oil Company, I went to Bakersfield and looked over the files and papers of Mr Owen in connection with this suit as my files were not complete and I wanted to know if there was anything in Mr Owen's files in connection with the reports on these lands that I didn't have. I found there this letter of March 25th and some township plats and some copies of fragmentary reports on townships and some things of that kind that I had not in my files, or any memorandum of. I had copies of my correspondence with Mr Owen and I introduced here a mass of carbon copies from my Houston office relating to these California oil lands. My purpose was not to go up there to see whether Mr Owen had not inadvertently kept some copies of reports showing these lands in this suit to be mineral and I did not find any such papers as that. I am interested in the Buena Vista Land and Development Company. I own one-tenth of the capital stock of that company. That company owns a great deal of land which was taken under agricultural scrip, in the Buena Vista hills and vicinity. They bought from Mr Wible a scrip title to a quantity of land in there.

I think there is about five or six sections up there altogether and I believe that those sections of land which they have are oil lands. The Buena Vista Land and Development Company are endeavoring simply to get possession of the property they bought in buying the scrip title to the lands. I don't know anything about what kind of scrip [2496] it is. It is a matter concerning which I have no knowledge personally as I had nothing to do with it further than to pay my money in for stock.

Q Well, you know their lands, don't you?

A I know which the lands are, or did know, I couldn't state it on the map. But I know that there was—that they had section 10 and the southwest quarter of Section 4 under placer location or title by mineral location and patent.

Q Well, how about the other sections?

A The others, as I understood, they bought—that they had been taken up under some variety of scrip, and that the state had—in which the state was interested.

Q State scrip?

A State scrip.

Q Yes.

A And that the state had given them their rights as far as they had given it, whatever that may be, and they bought those rights from Mr Wible, and that afterwards it was found that they had to be listed, or something at Washington and patent issued in that way.

Q By Mr Lewers—Is that the same S. P. Wible that has been referred to?

A Yes sir; the same.

Q By Mr Mills—I am not interested where they got the scrip. I am asking you whether the Buena Vista Land & Development Company are not now attempting to acquire the title by patent by the use of state scrip? [2497]

A. I don't know enough about the way those things are operated to be able to answer that question definitely. I simply know they have been waiting for patents on that land.

Q. Well, you know that there is a contest initiated and pending against their holdings there, by an oil company or in its behalf, claiming that the lands are petroleum lands, now pending before the land office, don't you?

A. I have heard of such a suit. I know nothing of it personally.

Q. Now, regardless of where the Buena Vista Land & Development Company obtained scrip, in which I am not interested at all, why did it place such scrip upon what you now concede to be and knew at all times, did you not, as oil land?

A. So far as I know the Buena Vista Land Company didn't place its scrip on any land.

Q. Why did the Buena Vista Land & Development Company now seek to get a patent by the use of that scrip when you yourself say that that land is oil land and you know it?

A. The scrip was on the land, the land had been

adjudged by the United States surveyors as agricultural land, accepted by the state, and they bought that title. They are trying to make their title good.

Q. You justify it because the Surveyor General had returned it as agricultural land, then?

A. So far as anyone knew at the time, it was [2498] agricultural land.

Q. Well, is that so? Can't you answer that question?

A. What is that?

Q. I say you seek now to justify their action by the fact that the Surveyor General had returned those lands as agricultural lands?

A. I am not justifying their action. I am just telling you the fact.

Q. Don't you know the lands *which form of* this suit were returned in 1902 by the Surveyor General as mineral lands because of their petroleum values?

A. I do not.

By Mr. Mills—You are perfectly willing to receive the benefits of those scrip locations not conceded to be mineral lands, aren't you?

A. I had gone in there and bought any land at that time with that kind of title that I considered the title covered the land properly; I could try and make that title good.

Q. What title are you talking about, Mr. Dumble?

A. I say any title, any title that was a title to the land.

Q. Well, does the Buena Vista Land Company claim to have a title to the land?

A. I understand that they do.

Q. They simply filed scrip, haven't they, in an attempt to get a title?

A. No sir. [2499]

Q. By Mr. Mills—Mr. Dumble, don't you think that it is your duty as a stockholder in the Buena Vista Land & Development Company, now that you concede that those lands are petroleum lands, to disclose your belief to the United States Land Office where that contest is pending?

A. I don't consider that I have any duty whatever in the premises.

Q. You are after the patent, aren't you, for those lands?

A. I am a stockholder in the company. I have absolutely nothing to do with its management, nor have I ever had.

Q. Well, you have advised the company geologically, haven't you?

A. I have not.

Q. And you have attempted to sell their lands for them, haven't you?

A. I tried my best to get a sale made for them.

Q. So that you have dabbled a good deal in the affairs of that company, haven't you?

A. No, only to that extent, and that because it was brought to me by other people.

Q. Well, haven't you yourself taken up the matter with people on your own initiative to help dispose of those lands or those holdings which the Buena Vista

Land & Development Company have in their agricultural scrip?

A. I don't remember having done so. I remember two parties having come to me in regard to it.
[2500]

Q. What parties were they?

A. The Associated Oil Company for one.

Q. Who else?

A. My recollection is that the—Mr.—Oh, I can't remember his name—Canfield, I think—no, that is not it; he was working with Captain Matson.

Q. Crandall?

A. Crandall, yes sir; that is my recollection now.

Q. Was that all the people that you broached on that subject?

A. That is all that I approached.

Q. You think it is perfectly right, then, for that company to attempt to maintain agricultural scrip on those lands when you as a stockholder and geologist know that they are mineral lands because of their oil-bearing character?

A. As long as they were taken up properly I think that they have as much right to maintain their rights to their title as they would if the patent had issued prior to their having bought it.

Q. And didn't you have some such freedom from responsibility, moral responsibility, when you, Mr. Dumble, proposed the selection of the lands in this suit under an agricultural grant, when you knew that they were petroleum lands?

A. I never proposed the application for lands in this suit, or had anything whatever to do with it.

Q. You throw the entire responsibility on Mr. Eberlein, do you? [2501]

A. Absolutely.

I don't remember the date that oil was first found in the Buena Vista Hills. I remember the bringing in of the Honolulu well, No. 1, in section 10 or 11 in 32-24 but I can't give the date. As far as I know that was the first well brought in. I remember it was in the winter subsequent to 1908. I don't know that there had been a discovery of oil in the Buena Vista Hills up to July 1, 1908. Prior to 1908 I regarded the Buena Vista Hills as an ideal spot for the accumulation of petroleum because of the structure of those hills. Their structure was apparently a dome and my information was that there were asphalt seeps on section 11, I believe it was, immediately adjoining the east line of section 10. I regarded the Buena Vista Hills as prospective oil; not positive. That particular place was based solely upon the structure and that indication in Section 11 and my opinion was based largely upon Mr. Owen's statement of the conditions. At that time I don't think I had been in the Buena Vista Hills themselves. I had only seen them at a distance. Mr. Owen had made a verbal report to me on the Buena Vista Hills and besides the report as to the structure and asphalt seep I don't remember now what other indications Mr. Owen told me about but I considered what he gave me as a good recommendation for prospective oil. I

also regarded his general information respecting the hills, and his belief from what he had seen in there. The subject of the employment of F. M. Anderson, as I recollect it, came up in my room in the Union Trust Building in San Francisco [2502] Mr. Anderson made application for a position under me bringing me a letter from Mr. Mills, at that time the Land Commissioner of the Central Pacific Railroad Company. That was in March, 1903, if I am not mistaken. Mr. Anderson was under Mr. Owen although they worked different fields largely. The land which was actually included in the proposed lease of August 2, 1904, to the Kern Trading and Oil Company according to my computation, was in the neighborhood of sixty odd thousand acres. Of this land Mr. Owen regarded twenty three to twenty five thousand acres as either productive oil lands, first class, second class and third class, and I have in my files a list which indicates where those twenty three thousand acres of land are. I recall the list of classified lands containing 93,311 acres to which my attention was called yesterday. That list was the result of a great deal of work done there by Mr. Owen and under his direction in the West side fields. I think the work was done in 1904 or the spring of 1905. I received files from Mr. Owen at different times but none that I have been able to identify. Search has been carefully made but we have been unable to find any classification in the files at any place.

RE-DIRECT EXAMINATION.

The letter which you show me was written by me on September 18, 1907, to Mr. W. F. Herrin. Attached to this letter is a list of lands for transfer from the Southern Pacific Railroad Company to the Kern Trading and Oil Company. The letter and attached list were offered in evidence and marked Defendants' Exhibit 159 and are as [2503] follows:

“Form 2103

919

SOUTHERN PACIFIC COMPANY

Office of

File 110.

Consulting Geologist.

San Francisco, Cal. Sept. 18, 1907.

Mr. Wm. F. Herrin,

Chief Counsel, Building.

Dear Sir:—The original lease from the Southern Pacific Railroad Co. to the Kern Trading & Oil Co. for oil lands in Kern, Fresno and Kings Counties, which was drawn by your office in 1904 having been destroyed by the fire, and no copy of it being now in existence, Mr. Calvin instructs me to request that you draw up another lease, covering the same points as nearly as possible.

The original lease was for a period of ten years with the privilege of renewal so long as the production of oil continued.

The royalty was 10% of the gross production, oil used for development purposes excepted.

As some of the lands included in this lease were already under lease, the Kern Trading & Oil Co. took

them over subject to the conditions of such leases, agreeing to pay the S. P. R. R. Co. the amount of royalty named on such leases during their occupancy and operation by the original lessees. These are all of the general conditions that I can now recall.

The list of lands covered by the original lease has been enlarged in accordance with Mr. Calvin's instructions to cover all lands that we now believe to be [2504] probable oil lands, and the amended list is attached hereto.

Will you please give this your early attention in order that it may be put through as soon as practicable.

Yours very truly,

ETD-F

E. T. Dumble.

Enclosure:

LANDS FOR TRANSFER FROM
SOUTHERN PACIFIC RAILROAD COMPANY
TO KERN TRADING & OIL COMPANY.

KERN DISTRICT:

Township 29 S., R. 28 E,

N-1/2, N-1/2 of SW-1/4,

and NW-1/4 of SE-1/4, Sec. 3

436.56 acres

NW-1/4, and N-1/4 of SW-1/4,

243.01

Township 29 S., R. 28 E., Sec. 7

Township 29 S., R. 29 E.

All of Sec. 17, 19, 21, 29

2563.76

McKITTRICK DISTRICT:

Township 30 S., R. 21 E.,

Sec. 1	847.87
Lots 1, 4, 9 & 10, NE- $\frac{1}{4}$ Sec. 11	100.36
Township 30 S., R. 22 E.	
Secs. 5, 9, 15, 23, 25 & 33	3912.89
All of Sec. 7 except NW- $\frac{1}{4}$ of NW $\frac{1}{4}$	590.27
N- $\frac{1}{2}$, N- $\frac{1}{2}$ & SE- $\frac{1}{4}$ of SE- $\frac{1}{4}$,	
N- $\frac{1}{2}$, SW- $\frac{1}{4}$, W- $\frac{1}{4}$ of SW- $\frac{1}{4}$ of	
SE- $\frac{1}{4}$ of Sec. 17	540.
All of Sec. 21, except W- $\frac{1}{2}$ of	
SW- $\frac{1}{4}$ & McKittrick town site	300.
E- $\frac{1}{2}$ & E- $\frac{1}{2}$ & NW- $\frac{1}{4}$ of NW- $\frac{1}{4}$	
Sec 27	440.
N- $\frac{1}{2}$ & SE- $\frac{1}{4}$ of Sec. 35	480.
Township 30 S., R. 23 E.	
Sec. 31	640.38
Township 31 S., R. 22 E	
NE- $\frac{1}{4}$ of Sec. 15	160.
NE- $\frac{1}{4}$ of Sec. 23	160.
NE- $\frac{1}{4}$ of Sec. 25	160.
Township 31 S., R. 23 E.,	
Secs. 5, 7, 9, 15, 21, 23, 25, 27, 29,	
33, 35	7036.88
E- $\frac{1}{2}$ of Sec. 17	320
Township 31 S., R. 24 E.,	
Secs. 31 & 33	1312.
[2505]	
MIDWAY & SUNSET DISTRICTS:	
Township 32 S., R. 23 E.,	
Secs. 1, 3, 11 & 13.	2564.30 acres
N- $\frac{1}{2}$ of Sec. 5	320.80

Township 32 S., R. 24 E., Secs. 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 33 & 35	10239.84
Township 12 N., R. 24 W. Lots 1 & 2, Sec. 25	
Township 11 N., R. 24 W. NE-1/4 Sec. 1	159.89
Township 12 N., R. 23 W. Secs. 29, 31, 33	1381.12
Township 11 N., R. 23 W. Secs. 3, 5, & 9 N-1/2 & SE-1/4, Sec. 15	1927.72 480.
COALINGA DISTRICT:	
Township 19 S., R. 15 E., Secs. 3, 5, 11, 13, 23, 25, 31, 33 & 35	6015.42
(Including leases on Sec. 31)	
Township 20 S. R. 14 E. Secs. 1, 13, 23 & 25, and E-1/2 of Sec. 15	2883.58
(Including leases on each)	
Township 21 S., R. 14 E. S-1/2 & NW-1/4 of NE-1/4, NW-1/4 SE-1/4, N-1/2 & SE-1/4 of SW-1/4, Sec. 13 E-1/2 & E-1/2 of NW-1/4, Sec. 25	400.
Township 20 S., R. 15 E. Secs. 1, 3, 5, 7, 17, 29 & 33 W-1/2 of Sec. 9 NW-1/4 & E-1/2 Sec. 19 W-1/2 of Sec. 21 N-1/2 of Sec. 31	4403.76 320. 488.18 320. 328.53

Township 21 S., R. 15 E.,	
Secs. 3, 5, 17, 19, 21, 27, 29 & 7	5295.68
W- $\frac{1}{2}$ of Sec. 15	320.
E- $\frac{1}{2}$ of Sec. 33	320.
Township 25 S., R. 18 E.	
NE- $\frac{1}{4}$ of Sec. 9	
S- $\frac{1}{2}$ of NW- $\frac{1}{4}$ of Sec. 11	160.
Township 24 S., R. 18 E.	80.
NE- $\frac{1}{4}$ & NE- $\frac{1}{4}$ of SW- $\frac{1}{4}$ of Sec 5	217.84
NE- $\frac{1}{4}$, NW- $\frac{1}{4}$, W- $\frac{1}{2}$ of SW- $\frac{1}{4}$	
E- $\frac{1}{2}$ of SE- $\frac{1}{4}$ of Sec. 7	495.42
SW- $\frac{1}{4}$ of Sec. 9	160.
NW- $\frac{1}{4}$ of Sec. 15	160.
NE- $\frac{1}{4}$, N- $\frac{1}{2}$ & SE- $\frac{1}{4}$ of NW- $\frac{1}{4}$, and	
NE- $\frac{1}{4}$ of SW- $\frac{1}{4}$ & SE- $\frac{1}{4}$ of Sec. 17	480.
SW- $\frac{1}{4}$ of NE- $\frac{1}{4}$, NW- $\frac{1}{4}$, and	
NW- $\frac{1}{4}$ & S- $\frac{1}{2}$ of SE- $\frac{1}{4}$ of Sec. 21	320.
NE- $\frac{1}{4}$ of NW- $\frac{1}{4}$ of Sec. 27	40.
N- $\frac{1}{2}$ & SW- $\frac{1}{4}$ of SW- $\frac{1}{4}$ of Sec. 35	320.
[2506]	
Township 23 S., R. 18 E. of Sec. 31	658.96
NW- $\frac{1}{4}$ of NE- $\frac{1}{4}$, NW- $\frac{1}{4}$	
Township 23 S., R. 17 E.,	
Secs. 15, 17 & 21	1440. acres
Township 26 S., R. 21 E.	
Secs. 29, 31 & 33	1927.10

The three expense accounts which are attached and marked Defendants' Exhibit 160, are my personal expense accounts for July, August and September, 1904. These expense accounts do not include the expenses of anyone besides myself. The treasurer's

voucher, 1130, dated October 22, 1903, was a payment to me of \$500. This is the amount I carried in the field to make necessary cash payments there. At Sour Lake during the rush of business it was necessary to pay cash for day labor and also for hauling and incidentals. No part of that sum was expended for the personal expenses or trips of myself or Thomas J. Griffin. The traveling expenses of the individual officers or employees of the Rio Bravo Oil Company were paid on presentation of signed personal expense blanks similar to those introduced and vouchers made of those. There is not in any of these books any voucher made to me or to anyone in my behalf to cover any part or all of the personal, traveling or other expenses of Thomas J. Griffin on any trip that he made with me at any time. I never at any time paid any of the traveling expenses of Thomas J. Griffin nor did I arrange to have any expenses for any trip for him at any time to California paid. Mr. Markham left Texas for California about the first of April, 1904. I don't remember of his having returned to Texas until after his resignation from the Southern Pacific Company [2507] in the fall of 1904. I don't remember the month. I had correspondence with Mr. Markham in San Francisco in the month of September, 1904. I was not at Welsh or any other place with Mr. Markham in the presence of Thomas J. Griffin at any time during the time Mr. Griffin was employed by the Rio Bravo Oil Company. I made my last trip to San Francisco in 1903 arriving there on about the 5th of November and remained

there until the 12th of December when I went to Houston remaining there until the 20th of January, 1904. No one accompanied me on this trip from Houston to San Francisco on November 1, 1903. On that trip I came by the coast route. At that time on my visit to San Francisco I did not take up anything concerning the construction of a lubricating or refining plant at Welsh. My recollection of the first time when that matter was brought up was in the spring of 1904 about March or April, and when you ask me if I had anything personally to do with the negotiation of any contract between the Rio Bravo Oil Company and the Spindletop Power Company for the supply of oil my answer is, "I may have read the contracts over to see whether the specifications for oil were correct but so far as the contracts themselves were concerned I had nothing to do with them. Mr. Markham acted for the Rio Bravo Oil Company and Mr. Bass for the Spindletop Power Company in the negotiations of these contracts." My idea when I received this large map of 1902 which Mr. Owen obtained from the Land Department, was that it covered very much greater territory than any [2508] possible oil lands. I had information from Mr. Treadwell on that subject and also I had my own knowledge of the region from what I could see in traveling over it. Mr. Treadwell informed me that there had been a blanket reservation put on covering practically all lands owned by the company in the valley. Referring to the first list that was made by the Southern Pacific Railroad Company to the Kern Trading and Oil Com-

pany in 1904, royalties were paid to the Southern Pacific Company by the Kern Trading and Oil Company under that lease, the voucher being made regularly from the first of April, 1904.

RE-CROSS EXAMINATION.

I made Mr. Eberlein a statement on the first of every month showing exactly what royalties had been earned by the S. P. R. R. Company and approved a bill from the S. P. R. R. Company for such royalties for voucher by the Kern Trading and Oil Company. I made Mr. Eberlein a statement on the first of May, 1904, for all royalties that had been earned. It was sent to his office and a statement was made afterward that on the first of each month so far as I know. Not to my knowledge did I meet Special Agent Ryan when he was sent out by the United States Land Office at Washington to examine the lands. When you ask me if the attempt on the part of that company to acquire an agricultural grant of lands which I and my men knew to be mineral was the reason that I took it upon myself five days before the patent issued in this case to suggest in my letter to Mr. Bancroft that the papers covering the transfer, namely, the lease of lands in McKittrick and Coalinga [2509] districts from the S. P. R. R. Company to the K. T. & O. Company my answer is, "I have stated that I merely made that recommendation to Mr. Bancroft because of deference to Mr. Eberlein's wishes in the matter" and when you ask me why I was so keen about examining only patented land and demanded lists of land from the

Southern Pacific Railroad Land Department which showed only lands which had just been selected and not patented, also which were not even surveyed, and why I took the trouble to get those lands as I was not examining them, my answer is, "We didn't ask for them until some time after this." The only lists that we asked for was in connection with the general report that was asked for on lands at a subsequent time. When you ask me if I didn't receive a list from the Land Department of the Southern Pacific Railroad Company showing the lands which had been selected but still unpatented, my answer is, "Mr. Eberlein sent us that map but we didn't ask him for the unpatented lands. I did not at that time know that the Land Department of that railroad company had lists of lands marked "Patented lands", another list marked "Selected but unpatented lands", another list marked "Unselected unpatented lands" and another marked "Unsurveyed unselected lands", and when you ask me if I did not receive a list of lands in the McKittrick district showing that those lands in the Elk Hills were selected but unpatented, my answer is, "I received nothing whatever except that map accompanying the letter of October 8th. That map showed on its face that those lands were selected but still unpatented. It [2510] also showed lands which were unselected and even unsurveyed" and when you ask what I wanted it for if I was only concerned in the patented lands my answer is "I didn't want it; I didn't ask for it."

Q. It was sent in response to your request, was it not—and you so testified?

A. It was sent, in response to my request, showing the lands in—on the list of the Kern Trading and Oil Company, to which Mr. Eberlein objected as their not having patents for, and in one case, that we had included the McKittrick townsite; and we asked him to give us a map showing what it was that they had and didn't have, in order that we might get our list correct.

Q. You wanted to know what lands would inure to that company, didn't you, under an agricultural grant?

A. I did not.

Q. You didn't?

A. No.

Q. Then you wanted to know what lands would inure to it if you could select them as mineral and represent them as non-mineral?

A. I did not.

Q. Now, have you been able to refresh your recollection, so that your mind is still not a blank, upon the language which you used some three years after that conversation you had with Mr. Eberlein, when you stated, "Early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere [2511] with you and we agreed to defer the execution until that danger was passed." Have you now any recollec-

tion, out of the blankness of your mind, as to what you meant by that "danger"?

A. So far as the word "rushing" is concerned—

Q. I am asking you now about the "danger"?

A. No danger to us. It was the danger that he might have—

Q. A danger to the land agent who had to make the non-mineral affidavit is that what you mean? The danger of being indicted, perhaps? Was that what you had in your mind?

A. It was not.

Q. What danger did you refer to, if you have refreshed your recollection now?

A. I have not refreshed it any more than it was before. I have simply restated it.

Q. Is your mind still a blank?

A. I have not stated that it was a blank. I simply say that I don't remember any special danger in regard to it, except that it would interfere with his work.

Q. Mr. Dumble, you know now, don't you, if you remembered three years after that conversation, and placed it in cold type—you now remember what the subject of conversation was, and you do now remember, to be honest, that Mr. Eberlein warned you at that time—

A. He did not.

Q. —of the position you were putting him in, with your knowledge of these lands, when he was making a [2512] non-mineral affidavit?

A. He did not, or I had no knowledge of them as mineral lands.

The letter to Mr. Bancroft bears witness that Mr. Eberlein thought there might be some danger to him and for that reason I asked that it be held up as a matter of policy, such as he suggested. I did not know as a personal matter when I had that conversation with Mr. Eberlein that Mr. Eberlein believed that there was a danger in that matter on account of his having made a non-mineral affidavit.

Q. And you knew that if the United States land officers, having charge or jurisdiction in the premises, had seen your letter of 1907 to Mr. Eberlein, in which you say that "you agreed with him that it was best to hold up that list until that 'danger' was past", they would have inquired into that matter, if that letter had been written prior to the patent in this case?

A. That was the only danger, as I understood it—that they might inquire into the matter.

Q. Then, why didn't you at that time go and disclose—

A. They had passed on them as agricultural lands.

Q. They had never passed on those lands as agricultural lands, and you know it.

A. Well, I don't.

Mr. Lewers—And you know that your statement is incorrect. [2513]

Mr. Mills—I know my statement is absolutely according to the facts.

Q. Now, when you knew that fact, why didn't you, as a citizen of the United States, having some

moral responsibility in the premises, disclose what you know to the United States Land Office, so that this fraud could not be perpetrated upon the government?

A. I had no knowledge that there was any mineral whatever in 30-23—absolutely none.

Q. You knew very well, Mr. Dumble, that Mr. Owen had examined those lands and this anticline across the very lands in suit, and you knew that the structure was favorable for the accumulation of petroleum, didn't you?

A. The anticline cut no figure in it whatever, because there were no indications of oil connected with it.

Q. Didn't you say, Mr. Dumble, in your letter to Mr. Kruttschnitt, that there were a number of untested anticlines which showed good and favorable signs for the accumulation of petroleum?

A. I didn't include that one.

Q. What untested anticlines did you have reference to?

A. They were noted on that map of Mr. Owen's.

Q. Yes. And that was one of the untested anticlines, wasn't it?

A. Surely; but not one of those mentioned.

Q. Did you specifically designate which untested anticline you meant? [2514]

A. The letter itself.

Q. The letter shows there are certain untested anticlines. It didn't mention them, did it?

A. It showed the ones that he considered oil-bearing.

Q. Did you think it was your duty to the railroad company, knowing the facts as you knew them, and rehearsing them in your letter to Mr. Eberlein three years after the patent issued, where you acknowledged and conceded there was a danger, to withhold that information from the United States Land Office?

A. I had no duty in the premises to either party, because, so far as I was aware, the lands in 30-23 were non-mineral lands; and the only reason for my agreeing with Mr. Eberlein was the danger, I take it, that there would be a delay and a looking into the matter when we were trying to get the patents through.

Q. You knew that Mr. Treadwell had withdrawn all of the lands around the lands in this suit—

A. I did not.

Q. —on that map? You have so testified, Mr. Dumble?

A. I have not testified that Mr. Treadwell withdrew them.

Q. Well, you knew they had been withdrawn by the land department on the advice of somebody, didn't you?

A. I knew that a blanket reservation had been placed on practically all the lands owned by the company in the valley. [2515]

Q. And that all these lands, the lands in this suit, were completely surrounded by that reservation?

A. Yes; and lots of others.

Q. Now, why didn't you disclose that fact to the Land Office?

A. Well, the government makes reservations for many miles around anything that shows any mineral indications and holds them out. Why should not the railroad, or anybody else?

Q. When you discovered that there was an anticline running across those lands there, and knew of that break in Section 22, in 30-24, if you knew of it at that time, why didn't you then disclose that fact to the land office?

A. I was not in the employ of the land office. They had their own men examining those fields. I didn't know of a break in 30-24. And the anticline in 30-23 showed no indications of oil.

I have looked over the testimony of two or three witnesses in this case. I have had my own testimony and Mr. Wible's and Mr. Overton's and Mr. Eberlein's and Mr. Treadwell's and I also read Mr. Stone's testimony. I may have read the testimony of one or two others that I don't remember. If Mr. Stone testified that it was through my suggestion because of reasons best known to myself, namely, that these lands were oil bearing lands, that these lands were rushed to selection, my answer to that is that I made no such suggestion. I do not know that Mr. Stone had been in the service of the Southern Pacific Company for upwards of thirty years. I had no knowledge that Mr [2516] Stone, because of his long service, was retired on a pension and is still drawing a pension from the company.

I do not remember going out in a carriage with Mr. Markham from the field to the tank farm, in company with Mr. Markham and Mr. Griffin, as testified by the latter; Mr. Markham was in San Francisco; I could not have had any conversation at that time about Mr. Eberlein; I did not go to Welsh with Mr. Markham during the time Mr. Griffin was there; Mr. Markham was in San Francisco at that time.

No conversation ever took place between myself and Thomas J. Griffin as testified by him on the Southern Pacific property, or the Rio Bravo proper, at Sour Lake, in Texas about twenty miles northwest of Beaumont, wherein he says there was no one present, and that a conversation came over Rio Bravo well No. 107, discussing the depth that the first strata was struck, or the probability of striking a lower strata and the gravity of oil that we would find at a lower strata; I did not tell him about a low gravity oil of Kern County, or the Kern field, and Sunset and McKittrick, or say that I would like to find an oil of that lower gravity, that it would be much better fuel oil without so much danger of fire, or suggest that if well No. 107 quit flowing or quit producing that I was going to take it up with New York and get an appropriation to deepen that well or go down and make a test of it; it is not true that I said to Griffin that the California field was the coming field or that he ought to go there and get in, the territory was so large, that I knew every foot of it, and had been over it in person.

There is not a word of truth in Griffin's testimony that I said to him that the territory in those Califor-

nia fields was so large that one could hardly put down a hole without getting oil, or that we owned a great deal of it, or that we had not taken out patents on a great deal of it, but expected to do so. [2517]

The Texas oil was as fine a fuel oil as we could find, and that oil was heavy enough for all purposes. It was a fairly good producer; it was not a gusher; I think its total production in its whole life was not more than 40,000 barrels; its was brought in in December, 1903; it was a shallow well. As a matter of fact, we would not expect to get heavier oil by going deeper; that is contrary to the facts of the oil business; furthermore, had I wanted to deepen that, I had full authority to do so without going to New York for permission. I had not been over the oil lands of California in person.

No such conversation as Mr. Griffin relates ever took place between himself and myself on the train in the spring of 1904 or at any time, and I never had a conversation with Griffin in California; I never made any such statement to anyone; I was never in the Elk Hills or on the lands in township 30-23 that are in controversy in this suit; up to the time that the patents were issued there had never been a report made to me either by Mr. Treadwell, Mr. Owen or Mr. Anderson [2518]

JULIUS KRUTTSCHNITT, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I am the chairman of the executive committee of the Board of Directors of the Southern Pacific Company. From April, 1904, to January, 1913, I was director of maintenance and operation of this company and as such was in charge of its oil developments. From 1901 to April 1, 1904, I was a Vice President and assistant to the President of this company. I was located at that time in San Francisco. When I became director of maintenance and operation I was located in Chicago up to November, 1911, when my office was transferred to New York where it is at the present time.

While I was Vice President and assistant to the President, my powers were very much the same as when I was director of maintenance and operation. The chief difference between the two titles was that after 1904 my jurisdiction extended over the Union Pacific System as well as that of the Southern Pacific. While I was assistant to the President, who was Mr. Harriman, he occasionally instructed me to look after other matters that were foreign to operation and maintenance.

From 1903 on I had charge of the operations of the Kern Trading & Oil Company in California and of the Rio Bravo Oil Company in Texas. Both of these companies were really departments of the Southern Pacific Company for exploiting oil lands and producing oil for fuel purposes on the railroad. Mr. E. T. Dumble had active charge of the field work

of the Kern Trading & Oil Company and reported to me as his superior officer. In matters of detail he reported to local operating officials in Texas and in California. In the latter place he reported to Mr. Markham, to Mr. Calvin and also to Mr. Bancroft, who was General Manager for a short time.

While I was located in California my knowledge of oil field conditions came in a general way from the newspapers and in a more special way from the reports that Mr. Dumble made to me from time to time. I had no knowledge of the locations of land containing oil belonging to the company other than what I gained from the reports of my subordinates.

I had absolutely nothing to do with the patenting of lands to the Southern Pacific Company except this. I knew in a general way as it was a matter of common talk, that the patenting of the company's lands from 1902 to 1904 was very much in arrears. This work was in the hands of the Land Department but after my appointment as assistant to the President, and particularly after Mr. Eberlein was sent to California, I was instructed by Mr. Harriman to cooperate with Mr. Eberlein in the work he was sent out there to do. I was not in charge of his work, but was asked to assist him.

Mr. Eberlein was sent out to California to push the patenting of the company's indemnity lands and to investigate the workings of the two land departments then in existence. That of the Southern Pacific Railroad Company was in charge of Mr. Madden, and Mr. Mills was land agent of the Central Pacific.

I know of no special reason influencing the application for patent at that time on the part of the railroad company except that before Mr. Huntington's death there had been considerable complaint that the government was very slow in patenting these lands [2520] to the company. I often heard Mr. Huntington himself speak of this.

Referring particularly to the lands which are involved in this suit, the first information I now recollect ever having received concerning that land or any land in the vicinity, was in 1903. Mr. Harriman had instructed me to push the use of oil fuel on our locomotives. I had done a little in this direction during Mr. Huntington's life and Mr. Harriman was much impressed with the economies that might be effected in this way.

Under these conditions one of the first things to be done was to ascertain what lands the company had which were available for oil production. Mr. Treadwell, after the excitement resulting from the finding of oil in Southern California, had recommended for reservation from sale, nearly all of the indemnity lands in Southern California. It was evidence to me that this reservation was entirely too broad. It took the company's lands entirely off the market, so when Mr. Dumble was put in charge of this work, one of the first things I told him to do was to review these reservations of lands from sale and to make up a list of those the land department should not be permitted to sell.

I instructed Mr. Dumble to make this examination some time in 1903. The examination was made and maps showing the results were sent to me in the autumn of 1903. I remember receiving Mr. Dumble's letter of September 21, 1903, which is defendants' Exhibit No. 119. I don't have the original of that letter as it was left in my files in San Francisco and was undoubtedly burned.

I recognize defendants' Exhibit No. 156 as either the original or a copy of the map that was sent me with this letter by Mr. Dumble. I cannot say after this length of time that it is an exact copy but in a general way it shows the condition of our lands as I understood it at that time.

I think at that time there were some oil developments [2521] at or near the town of McKittrick; but this map is a map of the company's indemnity lands, classified as proven oil lands, probable oil lands and possible oil lands. There were no developments in this township 30-23 at that time, (and I had no knowledge of the existence of oil or the possible existence of oil in that township at that time other than the coloring on this map that shows a possibility in the extreme southwest section of that township. The section I am referring to is section 31.

In 1903, Mr. E. T. Dumble was under my direction and control and I may say in a general way he has been under my direction the entire time he has been with the company. But in 1903 he was under my immediate direction as I was the executive officer in

control of the oil production of the company during that time.

The Kern Trading & Oil Company was formed for the purpose of developing oil on lands owned by the railroad company and also for the purpose of collecting royalty oil on some lands that at that time had been leased to outsiders. In addition to this it was to purchase oil for the operation of the railroad. I do not know at whose suggestion the company was incorporated. It was really organized as a fuel oil development and purchasing department of the Southern Pacific Company.

At the time the Kern Trading & Oil Company was formed and began its operation in the field, there was absolutely no secrecy in connection with it. It was not formed for the purpose of prospecting or determining the character of land not yet patented to the railroad company. Such an idea never occurred to me, or, as far as I know, to any other officer of the company. There was no effort or intention, either under my direction or that of anybody else of which I had knowledge, to have Professor Dumble or any of his men examine lands not yet patented in order to obtain advance information concerning their oil character. Neither I nor Mr. Dumble as my subordinate, had anything to do with the patenting [2522] of lands.

There was absolutely no arrangement between myself, as the person in charge of oil production, and Judge Cornish, or any other official of the Southern Pacific Company or any of its subordinate companies,

by which I asked or suggested, directly or indirectly, that these other officials should acquire land from the government by patent because I had learned that it was oil land.

As I have said, I was put in charge of the development of oil. To facilitate this development the Kern Trading & Oil Company was incorporated in the early part of 1903. One of the first questions considered was what land this company should begin operating on and also what land should be reserved from sale. I wanted all such lands turned over to this company so as to have control over them and prevent their sale. We had had trouble some years before as the land department had sold extremely valuable oil lands. I did not want that repeated and I wanted the lands placed under the control of Mr. Dumble so as to be positive that they could not be sold. This led to my telling him, I think in June, 1903, to have an examination made of lands owned by the company, so that we could take them off the market and, as far as their sale and development was concerned, take them out of the control of the land department.

It was my purpose to have all lands that were considered to be either actual oil lands, probable oil lands or possible oil lands, turned over to the Kern Trading & Oil Company so that it could control them. The policy of operation of the Kern Trading & Oil Company spoken of in Mr. Dumble's letter of September 21, 1903, was originally outlined by myself, and this letter and report is in response to a request I made for maps classifying the property. I remember re-

ceiving Defendants' Exhibit No. 123, Mr. Dumble's letter of November 20, 1903, enclosing a list of lands to be leased to the Kern Trading & Oil Company and I remember [2523] comparing that list with the maps at that time and finding that they agreed. When I received this letter I had not acquired any information concerning these lands in addition to what appeared in the maps and reports I have already referred to.

It is my understanding that the lands shown in this list accompanying Exhibit No. 123 were included in the lease that was subsequently drawn up. I remember receiving the various letters concerning the details of this transaction that Mr. Dumble has testified concerning. The papers in this transaction were sent to me for approval and I recollect that I approved them and instructed Mr. Dumble to proceed accordingly. Each important step in this matter was referred to me. After I decided upon the transfer to the Kern Trading & Oil Company I turned the matter over to Mr. Dumble to take it up with the attorneys and have it put in shape. I have no doubt that all of my correspondence was burned in the San Francisco fire.

I was in immediate charge of operations in California until April, 1904, when Mr. C. H. Markham took my place there. He remained as manager for possibly a year and was succeeded for a few months by Mr. Bancroft who occupied the place until we selected Mr. Calvin as a permanent general manager.

I think I probably learned first that land in town-

ship 30-23 had been selected and patent was being applied for at some time while this lease was in course of preparation. The lease was a long time in preparation and I knew that after Mr. Eberlein reached California there was some friction between him and Mr. Dumble, because the latter had recommended a lease that included one section in this township and Mr. Eberlein had an application pending for a patent to nearby lands. I do not know exactly when this difficulty arose, but it was during the time the lease was being considered. Mr. Eberlein protested against the lease and delayed signing it as land agent. He conceived the idea that the [2524] signing of this lease or the reservation of these lands was detrimental to something he was doing, and attempted to arrogate to himself the power of vetoing the lease.

I do not think that Mr. Eberlein made any objections to me in person, but I know through Mr. Dumble that he would not sign the lease. This difficulty with Mr. Eberlein did not have the slightest effect on my belief concerning the character of the lands in township 30-23. I had looked over the list of lands in this lease in connection with the map that had been furnished me. I had told Mr. Dumble to inspect these lands in the lease and report on them and I accepted the selection he made. It included only section 31 of township 30-23 and this was marked on the map as "possible" oil land. I did not care whether Mr. Eberlein signed the lease or not. The lands in the lease belonged to the Southern Pacific Railroad Company, every share of stock of which company was owned

by the Southern Pacific Company. The object of the lease was simply to put the matter in shape for the accounting department for bookkeeping purposes. As a matter of fact, we proceeded with the development of oil on a part of these lands regardless of Mr. Eberlein's refusal to sign the lease and he never objected to our doing so. I was acting under the orders of the president and he knew it.

I have my own belief about Mr. Eberlein's reasons for refusing to sign this lease. He had come out to California charged with certain duties by Judge Cornish, the Vice President in charge of lands. Judging from his talks with me he evidently thought that he was the king pin so far as anything relating to the company lands was concerned. He knew I had instructions to develop oil on lands of the company and I have never been able to trace his objections to signing the lease to anything except pique because he had not been consulted and considered himself slighted.

At the time this question arose with Mr. Eberlein, I [2525] did not dream that there was anything irregular in connection with the application to patent these lands. It is true there was a misunderstanding between Mr. Dumble and Mr. Eberlein, in consequence of which the latter would never sign the lease. But the lands then were not supposed to be worth anything for oil producing purposes, and they have never been considered worth anything since; and they are not worth anything now. The lands in township 30-23, I should say from what I have seen of that country, are fit for nothing except poor grazing or agricul-

tural purposes. From the information I have, however, I do not consider that they have any value for oil purposes. Most of my information concerning them is based on reports of my subordinates. I have been at McKittrick and from there I looked over that whole country. As far as I am concerned, with all due respect to California, I would not give fifteen cents an acre for the whole township; and if it were not for this imputation of fraud on the part of the officers of the Southern Pacific Company I would say today that every acre we own in the township might be sold for anything they could get for it, if they could find anybody foolish enough to buy it for what it is worth.

From the time I first acquired any information concerning lands in the immediate vicinity of those involved in this suit down to the present, and during all the time I have been in charge of oil production in connection with the Kern Trading & Oil Company, I have not at any time desired to obtain or considered as worthy of being obtained, any of the lands in township 30-23 for oil purposes. I did not at any time direct or suggest to Mr. Eberlein or anyone else that these lands be selected for patent. The only reference to me in connection with these lands seems to be a letter written me on October 12, 1903, by Mr. Chambers, our attorney in Washington. This letter is in evidence, and evidently refers to a letter that I write Mr. Chambers from [2526] New Orleans dated October 9, 1903, with which I sent him certain papers that I had re-

ceived from Mr. Eberlein who had asked me that the patenting of certain lands be expedited. As I have said, I had nothing to do with the patenting of lands, but had been instructed by Mr. Harriman to assist Mr. Eberlein in carrying out his work in California. When his letter came to me I evidently referred it to Mr. Chambers and asked him to help the matter along. In this letter Mr. Eberlein appears to have asked that special attention be given to the patenting of a selection list which he then expected to file. There was nothing known to me at that time requiring special attention to be given this particular list. But I knew that the patenting of the company's lands was very much in arrears and that Mr. Eberlein had been sent to California to expedite the patenting of lands in general. Therefore, if he had sent me a request to patent the North Pole I would have sent it on and asked Mr. Chambers to get after the department about it. In short, I had no idea when this letter was sent me where the lands referred to were. I did not have any information indicating that these particular lands were desirable. My understanding of Mr. Eberlein's request was that he was simply carrying out his general plan of patenting lands due to the Southern Pacific Railroad Company.

Mr. Eberlein was a nervous, energetic, strenuous person; everything he went into he went into apparently heart and soul, as if it was the only thing to be attended to; and this letter, and I have no doubt others, and oral requests made on me, to expedite this, that and the other, were made by him in furtherance

of the work he was sent out to do. In other words, he was thoroughly wrapped up in it and he did everything he could to push it along, and it occurred to me on numerous occasions that the selection of Mr. Eberlein had been extremely apt, because of his capacity for driving and pushing. [2527]

In this same letter from Mr. Chambers there is a reference to the fact that a special agent of the government by the name of E. C. Ryan had been directed to report upon certain lands in California. I was not acquainted with this man and do not have the slightest recollection of ever having seen him or had communication with him either written or oral. The first I ever heard of any examination of lands by him was evidently through this letter, but as I was simply helping Mr. Eberlein along, the letter produced little or no impression on me. I have only recently learned that Mr. Ryan did make such an examination.

Up to the time this suit was brought I never heard any suggestion that there was anything irregular concerning the selection of the lands involved. I have never considered that there was anything in connection with this transaction that required to be concealed and I don't know of anything that we have concealed. Down to the present time I have heard of absolutely nothing indicating that any fraud had been committed in connection with this selection by any official of the companies concerned. As I have already said, the land was not considered oil land in 1903 and 1904, the government evidently taking the same view because it patented the land to the com-

pany. It has been taken up and wildecatted by a number of concerns since that under the impression that there might be oil there, and I understand they have all given up in disgust.

I am not aware of any system of examination of lands not yet patented for the purpose of acquiring advance information concerning their oil character. No such thing was ever suggested to me by Judge Cornish or by any other executive official of any of the companies concerned. I have never known of its existence and have never had any reason to suspect it. I was in charge or control of the oil production of the Southern Pacific Company operating under direct instructions from Mr. Harriman and there [2528] has been no one over me in charge of that work.

The proposed lease we then had under consideration did not include any of the lands involved in this suit, but it did include section 31 in the same township which had been patented by this company prior to that time. I don't think that this lease of 1903 and 1904 was executed by Mr. Eberlein. He said he would never sign it and I don't think he did. I have some recollection of being in San Francisco several years later at which time the question came up concerning a re-examination of lands to be included in a lease to the Kern Trading & Oil Company, but I really do not know whether Mr. Eberlein ever did sign this lease or not. It was a matter of so little importance that I did not watch it. I don't think that the lease which is in force today includes any of the lands that are involved in this suit.

In 1902 while I was assistant to the President, I had no consultation with Judge Cornish. I went to New York four or five times a year or oftener to confer with Mr. Harriman at his request and was in touch with his views concerning California matters so far as my work was concerned. Mr. Harriman seldom answered letters and would let them accumulate and when he had a stack of them he would telegraph me to go to New York and we would take them up.

While I was in California in 1903 and early in 1904, Mr. Eberlein frequently dropped into my office and talked about the matters he was working on. He made no formal reports to me but he did discuss what he was doing. Up to the time I left California on April 1, 1904, I was the only official of the company with whom he could take up such matters.

The object of all of these conferences that Mr. Eberlein had with me was to generally discuss the situation in California as to the things he was trying to do. There were a great many of these conferences and the particular thing that I was to help him [2529] about was the investigation of the conduct of the land department and in pushing the patenting of lands. I had no concern or interest in having the patenting of these particular lands pushed ahead rapidly in any way because of their known or hoped-for oil character. I had no idea what lands Mr. Eberlein was applying for and never concerned myself with that at all. My interest was not in any way influenced by hope or wish on my part to acquire lands that should be used for the production of oil. We had at

that time a great many thousand acres of land in our possession which we thought was oil land which we thought was enough to keep us busy for a long time. On numerous occasions offers of land were made to the company which were said to be choice lands, but I always answered that we had enough of our own to keep us busy for years and that I didn't propose to recommend the acquisition of any more. I desire to state with all the emphasis at my command that I had nothing to do with the patenting of lands except as already stated and I had no interest whatever in pushing the patenting of these particular lands in dispute.

I was not concerned or solicitous about obtaining a patent to these particular lands as distinguished from any other lands. My interest was simply and solely to carry out the instructions of my superior officer, the president, to help matters along and that Mr. Eberlein was engaged in. Neither Mr. Eberlein nor Professor Dumble or anybody else told me in 1903 or 1904 that these particular lands involved in the present suit were desirable because they were in the vicinity of oil fields and might produce oil. No one ever told me that. I did receive maps sent in response to requests, many of which were marked possible oil lands, but these did not include any of the lands involved in this suit. Until I heard of some of this friction between Mr. Eberlein and Mr. Dumble to which I have already referred, I had no idea that Mr. Eberlein was trying to patent any lands any-

where near [2530] the lands that had been even examined by Mr. Dumble and his assistants.

I did not see defendants' Exhibit No. 157, the map which you say Professor Dumble testified was sent him in 1903 by Mr. Owen, until some time in 1912, when Mr. Dumble showed it to me. The date, March 25, 1903, in pencil on that map was put there by me at that time to indicate the date of the map. If I had seen this map in 1903 and had also known at that time that Mr. Eberlein was asking for a patent to lands in township 30-23, I would not have thought that his application was irregular. The legend on the margin of this map shows a yellow square and opposite it the words "land supposed to contain oil" and none of this yellow color appears in township 30-23. The anticlinals represented on this map running through the south half of township 30-23, would not have led me to believe that the application was irregular as the legend on the map distinctly states that the lands supposed to contain oil are colored yellow and there is none of this color anywhere near the anticlinals in that township. My understanding is that an anticline is the ridge of a hill and that its existence does not mean that there is necessarily oil. There are other anticlines shown on this map which are colored yellow, but the one in township 30-23 is not.

If it had been my purpose in 1903 to fraudulently obtain a patent to the lands involved in this suit in township 30-23, it would have been the height of folly for me to have advised or permitted the execution of a lease to the Kern Trading & Oil Company, including

section 31 in that township and other sections adjoining section 31.

There was no plan on the part of the railroad company to obtain patents to lands near known oil fields in the hope that lands so patented would turn out to be oil land. There was never any thought of that sort; still less any attempt made. I don't [2531] think that any of the employees of the company under my supervision in the oil development department could have had any part in such an attempt without my knowing it sooner or later, and I have never heard the slightest suggestion of their being engaged in anything of that sort. In the latter part of May 1912, I read what purported to be an interview given out by the Attorney General in which it was suggested that the higher officers of the Southern Pacific would be shown to have been involved in fraudulent entries of oil lands. There was absolutely no truth in that statement.

Cross-Examination.

I do not know whether Mr. Eberlein's selection of the land involved in this suit was the first one that was made by him. I was not concerned with the question of patenting other than that I on one or more occasions did forward letters in which he requested that the patenting of lands be expedited.

My attention has been called to the Chambers' letter of October 12, 1903. In forwarding this letter I did not pay any attention to the location of the lands, my object being simply to assist Mr. Eberlein.

I had been in McKittrick prior to that time on several occasions beginning probably shortly after 1895,

but I cannot give you the dates. I remember being there with Mr. Treadwell but I cannot specify the year.

In 1903 and 1904 I was a director and second Vice-President of the Southern Pacific Railroad Company and as I recollect it, I held these positions for several years before I left California. But as such officer I had nothing to do with the land matters of that company except to the extent I have already testified and it is not true that I had immediate charge of its land affairs.

When the geological department of the Southern Pacific Company was organized it was the understanding with our geologist [2532] that he should examine from time to time any and all lands owned by any of our railroad companies. It is possible that I directed Mr. Dumble to examine lands owned by the Southern Pacific Railroad Company as early as 1902 and I may have done the same thing with Mr. Treadwell, his predecessor. I have no recollection of this, however. I do not remember ever giving any orders to Mr. Owen and don't think that I did as I made it a rule not to give a man orders except through his superior officer. I have no doubt talked to Mr. Dumble about these matters but I don't think I ever gave Mr. Owen any orders direct.

It is also possible that I may have requested lists of land from the land department of the Southern Pacific Railroad Company. And it is possible that on some of these maps unpatented areas may have been included, but that was not because of any request of

mine. I remember seeing Mr. Owen in my office some once or twice but I do not recollect what he came to my office for.

I don't remember going in to the oil fields with either Mr. C. P. Huntington or Mr. H. E. Huntington. Mr. C. P. Huntington died in 1900. Mr. H. E. Huntington had charge of the lands of the Southern Pacific Railroad Company up to the time Mr. Harriman assumed the presidency of the Southern Pacific. I do not have the least recollection of meeting L. G. Sarnow, who you say testified that he had met me in the old field with Mr. Huntington.

Before Mr. Dumble took charge of operations in the oil field, Mr. Treadwell was developing oil for us and he reported to me concerning his work. I had considerable confidence in him at the time and I have never had any cause to abate any of this confidence. Mr. Treadwell was a fairly good oil expert for his time. He was engaged by me in California and was later asked to go down to Texas to see if we could get some oil wells there for the use of the company. He bought two or three pieces of land for us at Spindletop in Texas and I know he bought other pieces which we [2533] did not care to take over and which he retained himself. He also bought some small pieces of land for us near the town of McKittrick in California. He bought these in his own name, no doubt to cover up the fact that our company was purchasing the lands. All of these purchases were referred to me and I did not approve all of these that he made and he afterwards kept some of the lands for himself. There

was no secrecy, however, about the fact that he was the oil expert of the company. There never was any question or difficulty with Mr. Treadwell concerning the purchase of these lands or concerning the money used by him. We have a good accounting system and I know that we did not pay for any lands that we did not receive.

I do not believe that I ever directed Jerome Madden, the land agent of the Southern Pacific Railroad Company, to withdraw from sale land in Kern County which I believed to be valuable for petroleum. Such orders were given to Mr. Madden quite frequently but not by me as I had nothing to do with him or his department. I would write letters to Mr. Harriman stating what lands I thought should be reserved and he would either pass the letter to Mr. Madden or in some other way would have the reservation made.

Neither Judge Cornish nor Mr. Eberlein had anything whatever to do with the work that Mr. Harriman had instructed me to do, which was to get the Southern Pacific locomotives burning oil just as quickly as I could. There was no effort to keep Judge Cornish or Mr. Eberlein in the dark about the operations of the Kern Trading & Oil Company. There was no darkness, there was no secrecy, there was no intimation of fraud until ten or twelve or thirteen years after this company was formed. There was no reason why Judge Cornish and Mr. Eberlein should be consulted about the affairs of the Kern Trading & Oil Company. Mr. Harriman had instructed me to develop oil and to use it on the locomotives. The details

by which these lands were to be transferred were no doubt [2534] decided by the Law Department. I don't know at that time just what the reasons were, but at any rate it was determined to form the Kern Trading & Oil Company to develop oil, to purchase oil and to handle existing leases. The Southern Pacific Company controlled all of these lands and the sub-lease to the Kern Trading & Oil Company was only made for bookkeeping and accounting purposes. There was never any secrecy about it.

It was not necessary to get Mr. Eberlein's signature to this lease, although it was desirable as a matter of form. I considered it of very little importance whether Mr. Eberlein signed the lease or not and in fact we proceeded with the development of oil regardless of the fact that he refused to sign the lease.

As I have stated, it is my impression that Mr. Eberlein refused to sign this lease because of pique, owing to the fact that he had not been consulted and considered himself slighted. It is also probable that owing to the fact he was charged with the selection and patenting of lands he felt that the leasing of adjoining lands for oil purposes might throw some doubt on his selection, just as a man might feel who desired to acquire farming lands from the government and whose tenant was discrediting his representations to the government by carrying on mining operations on adjacent land.

I do not think that I ever saw the letter written by Mr. Eberlein to Judge Cornish dated September 3, 1904, appearing at page 1775 of the transcript.

Taken in connection with other parts of the letter, the part that has been referred to warrants the conclusion that Mr. Eberlein was piqued. The latter part of the letter was evidently intended to excite some fear in the mind Mr. Cornish, as he had evidently tried to excite fear in the minds of Mr. Dumble and others, that if this lease was persisted in it would get us in trouble with the government. I do not think that Mr. Eberlein had just cause to protest against the activity of Mr. [2535] Dumble examining lands for their oil character which were not yet patented as I do not believe that any such thing occurred.

It was none of Mr. Dumble's business to examine unpatented lands. But if he did so I think it is quite natural that Mr. Eberlein should object. The assumption that Mr. Dumble did make such examinations is altogether hypothetical, but if he did so Mr. Eberlein's fear of being embarrassed in the land office in getting patents was quite natural. He had had experience of this sort because the land office had, in 1900, kept back a large area of lands and delayed patenting them for several years because of suspicion that there was oil on them and after this long delay they finally issued the patents. If I had known that Mr. Dumble was doing anything of that kind I would have stopped it.

I do not think that the map sent Mr. Dumble by Josiah Owen with his letter of March 25, 1903, indicates that Mr. Dumble was making examinations of unpatented lands. The identical indication on this map of anticlinals running outside of the company

lands does not show that such examinations were made. I did not see this map until 1912. I have no recollection of seeing a map that represented anticlines on its before that time.

Reverting to the question of the authority of the Kern Trading & Oil Company to operate on lands of the Southern Pacific Railroad Company without the lease being signed by Mr. Eberlein, I will say that according to my understanding, this was done entirely within our legal authority and I am convinced that I had the right because nobody ever objected to our operating on the lands. Mr. Eberlein objected to signing the lease but that was all. The Southern Pacific Company owned the stock of the Southern Pacific Railroad Company and that carried the ownership of everything that the latter company owned. I have explained that I was acting under the directions of the president of both of these companies and I did not attach any importance then nor do I now, [2536] to the fact that Mr. Eberlein did not sign the lease.

Referring to the letter which Mr. Dumble wrote Mr. Bancroft on December 7, 1904, speaking of a conversation he had with Mr. Eberlein, I will say that in my opinion this was a perfectly proper letter and I think Mr. Dumble would have been unreasonable if he refrained from respecting Mr. Eberlein's objections. I should have said the same thing if Mr. Eberlein had told me that the lease was embarrassing him in anything that he was doing. I did not know anything about the conversation between them, referred to in this letter, although Mr. Dumble may have sent

me a copy of the letter at the time. I consider the conversation of very little importance.

If, as you say, it is testified Judge Cornish advised the keeping of the papers regarding the execution of that lease in a separate file and decided to burn or destroy his part of the correspondence, the information is interesting and curious. I know nothing about it and Mr. Eberlein never told me anything about it and I cannot conceive of any reason why Judge Cornish should have destroyed the papers or why he should have told Mr. Eberlein that he did.

The later lease of December 12, 1907, appears to have been signed by Mr. E. E. Calvin as an officer of both the Southern Pacific Railroad Company and the Kern Trading & Oil Company. In 1903 I was myself an officer of both companies and might have myself executed that lease on behalf of one company and accepted it for the other, which is apparently what Mr. Calvin did in 1907. I do not see how any question whether this would be lawful or not comes in as nobody could object except a stockholder or bondholder. There was no stockholder to object because there was only one, that is the Southern Pacific Company, and as to the bondholders, they have all been paid off.

I have repeatedly said that this lease was not kept [2537] secret and I don't know why it was not recorded, but my opinion is that it didn't make a particle of difference whether it was recorded or not. It was unnecessary to have any lease at all except for bookkeeping and accounting purposes and to prevent

the land department from selling lands that the company owned and which we wanted to develop for oil.

I paid a great deal of attention to the preparation of the papers in connection with this transfer to the Kern Trading & Oil Company, but this was not because I regarded the lease itself as important. I no doubt hurried the matter up, through a habit I have that whatever is on my desk unattended to I want wound up and gotten out of the way. I was anxious that the development of oil should proceed with all due diligence, but I can only repeat that I never attached any great importance to the lease, and knew, at the time, that the mere preparation of the lease, or the refusal to sign the lease, would not have any effect on our developing oil. But it is like any other matter—I have a great many matters of detail which I am anxious to have closed up because they ought to be closed although of no great importance.

When I received the Chambers' letter of October 12, 1903, I paid no attention to the lands involved and simply acted as an intermediary to use the influence of my office with our attorney in Washington to get him to comply with Mr. Eberlein's request. At that time I had no idea where the lands were or what the object of hastening the patent was, except that I knew that Mr. Eberlein had been charged in a general way with expediting the patenting of all unpatented lands. A description in this letter of lands by section and township numbers would produce no impression on my mind as to where the lands were as I cannot now tell you what township McKittrick is in and it would

be necessary for me to locate any such lands by reference to a map. [2538]

I have no doubt that when I got Mr. Eberlein's letter I sent it on to Mr. Chambers and when I got his reply of October 12, 1903, that I sent it to Mr. Eberlein. If I had ever paid any attention to this letter the information in it to the effect that the government was sending Mr. Ryan to make an examination of the land, ought to have convinced me that there was no fraud in the matter. Besides the Kern Trading and Oil Company the Southern Pacific Company was operating the Rio Bravo Oil Company in Texas, which is the oil department of the Texas companies, and the East Coast Oil Company in Mexico.

It owns a little over fifty per cent of the stock in the Associated Oil Company, operating in California. It owns stock in the Reward Oil Company, and perhaps in other small companies in the McKittrick that was bought by Mr. Treadwell. He could not get the property and he bought stock in those companies for the purpose of helping out our oil supply.

Q. Now, the Southern Pacific Company acquired its control by stock ownership in the year 1907, did it not?

A. That I don't remember.

Q. Or 1906, about, to the best of your recollection?

A. No. My recollection is that the Associated Oil stock was bought by the Southern Pacific as long back as 1903 or '04, when I was in California. I don't know

when they acquired control. That is a matter that I had nothing to do with.

Mr. Mills—Now, I would like to offer in evidence, without taking any of the time of this witness, just these pages referring to the Associated Oil Company.

The Witness—Well, we will substitute others.

Mr. Mills—I won't take this away; just have it copied into the record.

The Witness—I think we have some unbound copies of it we can give you? [2539]

Mr. Mills—I offer pages 6 and 7 of the manual No. 9, for 1911, in evidence. Also, page 8, with reference to the Associated pipe-line. And, from manual No. 10, of 1912, I offer pages 6, 7 and 8, all of which I will read into the record as follows.

Mr. Lewers—I desire to object to the offer, on the ground that the matter offered is irrelevant to any issue in this case, and on the further ground that it is not cross-examination.

“MANUAL NO. 9-1911 SOUTHERN PACIFIC
AND AUXILIARY COMPANIES,
JANUARY 1, 1911.

(page 6)

Associated Oil Company.

Incorporated, California, October 5, 1901, for 50 Years.

Annual Meeting Oil Center, Cal., first Tuesday in April.

Notice to be given ten days previously by publication [2540] in one or more newspapers published in

the County of Kern and in the City of San Francisco, or in writing signed by the President and delivered to each stockholder.

Regular meetings of Directors, Oil Center, first Tuesday of April and October, without notice. Special meetings, at call of President in two days' notice—usually held first Tuesday of each of the remaining months.

Fiscal year closes December 31.

Capital stock: authorized and issued, \$40,000,000.

Shares, \$100. each.

Funded Debt.

First Mortgage Gold Bonds: authorized, \$5,000,000; outstanding, \$2,384,000; dated August 1, 1902; due August 1, 1922. Interest, 5 per cent., gold; payable February and August. Trustee, Union Trust Co. of San Francisco.

First Refunding Mortgage Gold Bonds: authorized \$25,000,000; outstanding, \$10,712,000; dated January 15, 1910; due January 15, 1930. Interest, 5 per cent., gold payable January 15 and July 15. Trustee, Union Trust Co. of San Francisco. Directors (11), elected February 28, 1910:

F. R. Buck.....	San Francisco.
J. A. Chanslor.....	“
E. T. Dumble.....	“
Burton E. Green,.....	Los Angeles
Rudolph Herold, Jr.,.....	San Francisco.
Wm. F. Herrin,.....	“
J. C. Kirkpatrick,.....	“

W. S. Porter,..... “

[2541]

R. P. Schwerin,.....San Francisco

O. Scribner, “

Paul Shoup, “

Executive Committee (5), elected February 28, 1910:

F. H. Buck,

Wm. F. Herrin,

J. O. Kirkpatrick,

W. S. Porter,

R. P. Schwerin (May 3).

(page 7)

Officers, elected February 28, 1910:

Wm. F. Herrin, President,.....San Francisco

W. S. Porter, First Vice-President

and General Manager,..... “

J. A. Chanslor, Vice-President,..... “

Paul Shoup, Vice-President,..... “

R. H. Giles, Vice-President,.....New York

G. Sheridan, Secretary (Dec. 6,

1910)San Francisco

G. Erret, Assist. Secretary (Dec. 6,

1910) “

J. L. Bruce, Assistant Secretary.....Oil Center, Cal.

R. G. Page, Assistant Secretary,.....New York

W. A. Sloan, Treasurer,.....San Francisco

R. T. Fisher, Assistant Treasurer

(Dec. 6, 1910)..... “

O. Scribner, Assistant General

Manager, “

[2542]

Bankers Trust Co., Transfer Agent for
 Stock,New York
 Guaranty Trust Co., Registrar for Stock, “
 C. B. Smith, Transfer Agent for
 StockSan Francisco
 Union Trust Co., Registrar for
 Stock,“
 O. C. Kahn, Transfer Agent for Bonds,..New York
 J. A. Simpson, Transfer Agent for “
 Bonds,“

(page 8)

Associated Pipe Line Company.
 Incorporated, California, August 22m 1907, for 50
 Years.

Annual Meeting, San Francisco, first Tuesday in
 August, Notice to be published in a San Francisco
 newspaper, or mailed to stockholders, at least ten
 days previously.

Regular meeting of Directors, second Tuesday of
 each month, at noon.

Fiscal year closes June 30.

Capital Stock: authorized and issued, \$7,000,000.
 Shares, \$100. each.

Owned, in equal proportions, by Kern Trading &
 Oil Co. and Associated Oil Co.

Directors (5) elected August 20, 1907:

F. H. Buck,.....San Francisco
 E. E. Calvin,.....“
 Wm. F. Herrin,.....“
 Geo. L. King,.....“

W. S. Porter,..... “

[2543]

Officers, elected August 23, 1907:

W. S. Porter, President.....San Francisco

Wm. F. Herrin, Vice-President,.... .. “

P. G. Williams, Secretary (Dec. 14,
1908) “

W. A. Sloan, Treasurer (Mar. 25,
1909) “

A. D. Heur, Manager,..... “

MANUAL NO. 10—1912 SOUTHERN PACIFIC AND AUXILIARY COMPANIES.

January 1, 1912.

(page 6)

Associated Oil Company.

Incorporated, California, October 7, 1901, for 50
Years.

Annual Meeting, Oil Center, Cal., first Tuesday in
April. Notice to be given ten days previously by
publication in one or more newspapers, published in
the County of Kern and in the City of San Francisco,
or in writing signed by the President and delivered
to each stockholder.

Regular meetings of Directors, Oil Center, first
Tuesday of April and October, without notice.
Special meetings, at call of President on two days'
notice—usually held first Tuesday of each of the re-
maining months.

Fiscal year closes December 31.

Capital Stock: authorized and issued \$40,000.00
Shares, \$100. each. [2544]

FUNDED DEBT.

First Mortgage Gold Bonds: authorized, \$5,000,000; outstanding, \$2,265,000; dated August 1, 1902; due August 1, 1922. Interest, 5 per cent., gold; payable February and August. Trustee, Union Trust Co. of San Francisco.

First Refunding Mortgage Gold Bonds; authorized \$25,000,000; outstanding, \$14,012,000; dated January 15, 1910; due January 15, 1930. Interest, 5 per cent., gold; payable January 15 and July 15. Trustee, Union Trust Co. of San Francisco.

Directors (11), elected April 2, 1912:

F. H. Buck,	San Francisco
J. A. Chanslor,	"
Frank G. Drum,	"
Rudolph Herold, Jr.,	"
Wm. F. Herrin,	"
J. C. Kirkpatrick,	"
A. D. McDonald,	"
W. S. Porter,	"
R. P. Schwerin,	"
Guy V. Shoup,	"

M. H. Whittier,	Los Angeles.
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Executive Committee (5), elected April 2, 1912:

F. H. Buck.
Wm. F. Herrin.
J. C. Kirkpatrick.
W. S. Porter.

Wm. Sproule. [2545]

(Page 7)

Officers, elected April 2, 1912:

Wm. F. Herrin, President,	San Francisco.
W. S. Porter, First Vice-President and General Manager,	"
F. B. Henderson, Assistant General Manager,	"
J. A. Chanslor, Vice-President,	"
J. R. Lewis, Vice-President,	New York.
G. Sheridan, Secretary,	San Francisco.
C. L. Coppage, Assistant Secretary,	"
J. L. Bruce, Assistant Secretary	Oil Center, Cal.
R. G. Page, Assistant Secretary,	New York.
W. A. Sloan, Treasurer,	San Francisco.
R. T. Fisher, Assistant Treasurer,	"
P. G. Williams, Auditor,	"

Bankers' Trust Co., Transfer Agent for Stock	New York
Guaranty Trust Co., Registrar of Stock,	"
R. T. Fisher, Transfer Agent for Stock,	San Francisco
Union Trust Co., Registrar for Stock and Bonds,	"
O. C. Kahn, Transfer Agent for Bonds,	New York
J. A. Simpson, Transfer Agent for Bonds,	"

(Page 8)

ASSOCIATED PIPE LINE COMPANY.

Incorporated, California, August 27, 1907, for 50 Years.

Annual Meeting, San Francisco, first Tuesday in August. Notice to be published in a San Francisco newspaper, or [2546] mailed to stockholders, at least ten days previously.

Regular meeting of Directors, second Tuesday of each month, at noon.

Fiscal year closes June 30.

Capital Stock: authorized and issued, \$7,000,000. Shares, \$100 each. Owned, in equal proportions, by Kern Trading & Oil Co. and Associated Oil Co.

Directors (5), elected August 20, 1907:

F. H. Buck,	San Francisco.
E. E. Calvin,	"
Wm. F. Herrin,	"
Geo. L. King,	"
W. S. Porter,	"

Officers, elected August 23, 1907:

W. S. Porter, President,	"
Wm. F. Herrin, Vice-President,	"
P. G. Williams, Secretary (Dec. 14, 1908)	"
W. A. Sloan, Treasurer (Mar. 25, 1909)	"

E. T. Morris, Manager, San Francisco."

Thereupon the witness continued as follows: [2547]

I never heard that Mr. Dumble advised his associates to locate even sections adjoining the lands in this suit. I never heard that Mr. Owen advised Mr. S. P. Wible or others to locate the even sections adjoining these lands in the Elk Hills for petroleum and I could hardly believe that he did because the map, Defendants' Exhibit 157, he prepared, indicates that these lands were of no value for oil. On that map he indicates lands supposed to contain oil by yellow coloring and did not color any part of township 30-23 in this way, but he did color one section and two quarter sections in this township in another way to indicate a possibility of oil. He did not confine this coloring to patented holdings of the company as there are a number of even-numbered sections on this map that are colored yellow. I think that probably one of the objects of making this map was to show lands that should be reserved from sale and the legend bears this out. My understanding is that the map represents a study made by Mr. Owen of oil indications and geological features in that part of California and it shows some of the lands owned by the railroad company and some that it did not own.

As I remember it, this recommendation of a reservation was in continuance of the policy Mr. Treadwell had recommended and in compliance with instructions that I gave the employees in the oil department as it was called at that time, to inform me what lands owned by the company they thought should be reserved from sale. I was afraid that the land department would let these get away from them

as they had lands in the Bakersfield district which were sold at \$2.50 an acre while Mr. Madden was land agent.

I cannot assume that Mr. Owen believed that the lands in township 30-23 were valuable for oil in the light of this map. He made other maps which were sent me in September, 1903, which went over the whole matter and in these he dropped from consideration the quarter sections in sections 17 and 19 and evidently [2548] thought they were of too little value to notice. On these maps he recommended the reservation of only one section in that township. Mr. Owen is dead; his reputation was valuable to him, no doubt is to his family. I have never had the slightest reason to doubt Mr. Owen's fidelity, honesty and reliability.

The testimony of Mr. Gorge A. Stone in this case, to which you have referred, would have very little effect on my opinion, as I understand he is very old, very infirm and a physical wreck. I think he is a pensioner of the Southern Pacific Company now, but I did not know that until it was mentioned in this suit. If he is pensioned his pension is based on a fixed percentage of his former salary.

I received a letter from Mr. Stone dated January 8, 1908, Plaintiff's Exhibit 5-N, enclosing a copy of a letter of the same date to Mr. E. E. Calvin, in which he complained of being dismissed by Mr. Eberlein and asked for an investigation and that he be transferred to some other department. I later received a letter from him dated March 23, 1908, in which he complained that Mr. Eberlein had forced him out of his

position as Assistant Land Agent, and said: "I served the company faithfully and well many years, and hoped that its interests would always be mine, but if a hearing and fair treatment are not accorded me without further delay my services will be at the disposal of the Newspaper press, the United States Attorney General and others."

Attorney for the Government thereupon introduced in evidence and read into the record, a letter dated March 23, 1908, addressed to J. Kruttschnitt by George A. Stone, which heads as follows: "Berkeley, March 23, 1908. Mr. J. Kruttschnitt, San Francisco, California. Dear Sir:—On January 8, 1908, I addressed you at Chicago enclosing copy of a letter I had that day sent to Mr. E. E. Calvin relative to action taken by Mr. Eberlein in forcing me out of my position as assistant land agent. To this [2549] letter Mr. Calvin replied briefly that he had no jurisdiction over the affairs of the land department, and could offer me no other employment.

On February 14, 1908, I addressed a letter to Mr. Eberlein (copy enclosed herewith) suggesting retirement if my services were no longer desired by the Company. To this letter no reply has been received.

I served the Company faithfully and well many years, and hoped that its interests would always be mine, but if a hearing and fair treatment are not accorded me without further delay my services will be at the disposal of the Newspaper Press, the United States Attorney General and others.

Trusting that you will be able to give this matter some attention while in San Francisco, I remain, Very respectfully yours, Geo. A. Stone 2635 A. Channing Way, Berkeley, Cal. Telephone Berkeley 1825"—which was marked "Plaintiff's Exhibit 5 L. Also, a letter dated February 14, 1908, addressed to Charles W. Eberlein by George A. Stone, which reads as follows: "Copy 2535 A. Channing Way, Berkeley, Cal. February 14, 1908. Mr. Charles W. Eberlein, Acting Land Agent S. P. R. R. Co. James Flood Building San Francisco, Cal. Dear Sir:—Will you kindly advise me whether the Company is willing in any way to show its appreciation of my faithful service of over thirty-five years. If the Company has no further use for my services, as would appear from recent correspondence with yourself and other officials, it seems to me, that as I have nearly doubled the length of service required for retirement, I may properly be placed on the shelf with disabled and superannuated veterans. Thanking you in advance for your kindly offices in my behalf, I remain, Yours truly Geo. A. Stone."—which was marked "Plaintiff's Exhibit 5 M." Also, a letter dated January 8, 1908, addressed to J. Kruttschnitt by George A. Stone, which reads as follows: [2550]

"Dear Sir: I enclose herewith copy of letter mailed today to Mr. Calvin asking for transfer from Land Dept. to other service. As land examiner and asst. land agent I have obtained a knowledge of the lands and records not possessed by any other official or employe of the company, but notwithstanding this,

and though I have for several years borne a large part of the burden, Eberlein has seen fit to force me out. I think the quality of my work and the confidential character of my employment in land department indicate that the best interests of the Company will be served by not turning me down after long and faithful service, Mr. John D. Isaacs has known me for many years. Yours respectfully Geo. A. Stone 169 Tenth St Oakland, California.”—which was marked “Plaintiff’s Exhibit 5 N.” Also, a letter dated January 8, 1908, addressed to E. E. Calvin by George A. Stone, which reads as follows:

“Dear Sir:—Have received a letter from the Acting Land Agent of the Southern Pacific Railroad Co. advising me that my resignation as Asst. Land Agent was accepted, to take effect December 31, 1907. As I have not tendered my resignation, and am not aware of any good cause for dismissal, it would appear that I am to be dropped to satisfy the whim or prejudice of an erratic official, and as this is not the kind of treatment usually accorded to employes by the Southern Pacific Company, I hope that you will, in fairness to me, and for the best interests of the Company, carefully investigate the matter and arrange for a transfer to some other employment. I commenced service as a flagman with engineering party of Central Pacific R. R. Co. July, 1865, and have been in active service of the Harriman System over thirty five years, during that period serving as engineer on reconnoissance, location, construction and maintenance under Mss. Montague, Clement, Curtis and Hood, and for

the past ten years in the Southern Pacific Land Dept as land examiner under Madden and Asst. land agent under Eberlein. [2551]

Recent illness and death in my family have prevented me earlier submission of the matter. Yours respectfully Geo. A. Stone 169 Tenth Street Oakland, California.

Copy to Mr. Kruttschnitt

Copy to Judge Cornish"—which was marked "Plaintiff's Exhibit 5 O".

When I got these letters, I could only guess at what Mr. Stone meant as he did not refer to anything specific. As the matters he mentioned did not concern me I referred the papers to Judge Cornish. I regarded the letter as impudent and cryptic, but I did not have him peremptorily discharged because I had no jurisdiction over him or Mr. Eberlein.

Judge Cornish was Mr. Eberlein's superior and had supervision over the land department of the Southern Pacific Railroad Company. Mr. Eberlein was sent to California for the purpose of expediting the patents to which the railroad company were entitled and also to investigate the conduct of the land department. Naturally we suspected that something was wrong when we found that the company's lands in the Kern River district had all been sold at grazing land prices. Apparently everybody knew that there had been an oil discovery there before we did and the result was that these lands were sold for a mere pittance. It was part of Mr. Eberlein's duty to investigate these departments for dishonesty or graft, which I am very

glad to say he didn't find. It was stupidity—nothing worse.

As I say, Mr. Eberlein was in a different department and our relations were cooperative only. If I had known at that time that the government had withdrawn these lands from patent because they were suspected to contain petroleum, I certainly would have considered that the government's interests were amply protected when they sent Mr. Ryan there to examine these lands. He evidently reported that the lands did not contain oil and a patent [2552] was issued to the company. I assumed naturally, that Mr. Ryan, being an officer of the government, was competent and his opinion should be relied on. I am here today under the imputation of fraud based on the opinions of other officers of the government.

RE-DIRECT EXAMINATION

of

JULIUS KRUTTSCHNITT

When I received Mr. Stone's threatening letter I replied to him that I had no jurisdiction over the land department and that I was referring his letter to Judge Cornish. I wrote the letter saying: "Please consider the matter referred to you for such disposition as may to you seem proper." If I had been aware of any irregularity affecting Professor Dumble or my department in connection with this matter I should probably have referred these letters to Mr. Dumble and his people and asked for an explanation. The Stone letter meant absolutely nothing to me,

however, and I attached no importance to it as my action at the time shows.

I probably took the first Stone letter with me on a trip to New York because on February 13, 1908, I wired Judge Cornish, saying: "You were to advise me further in regard to George A. Stone." And again on the 19th of the same month I wired him from Chicago asking him to let me know what the trouble was with Stone. On February 24th he wired me, saying, "As near as I can judge George A. Stone was dropped in the interest of economy and because he was no longer fitted for the kind of work he preferred to do."

I cannot remember at this time any conversation with Judge Cornish about this matter and I attached no importance to it.

I had nothing to do with the pensioning of Mr. Stone. The pensioning of superannuated veterans, as he calls himself, is [2553] handled entirely by the local pension board which is located in San Francisco. If Mr. Stone was entitled to a pension, granting it was no favor to him as he was being granted rights already given him and all other employees years before by the board of directors.

Exhibit No. 158 shows that the railroad company in 1904 already owned $7\frac{1}{2}$ sections in township 30-23 and had selected for patent about $9\frac{1}{2}$ sections. The colors on this map indicate that only one section, that is 31, in that township, was included in lands leased to the Kern Trading & Oil Company, and $6\frac{1}{2}$ sections which the company owned in that township were evidently considered not valuable enough to even put

in the lease. The Owen map of March 25, 1903 (Exhibit 157) shows only one whole section and two quarter sections that he recommended to be reserved from sale, although it appears from the map, Exhibit 158, that the company actually owned $7\frac{1}{2}$ sections in that township at that time. [2554]

FRANK SHAY

Sixty-eighth Witness for Defendants. San Francisco.

July 2nd, 1913.

Direct Examination.

I am an attorney in the Law Department of the Southern Pacific Company and have been connected with that company for thirty-eight years. I was acquainted with Jerome Madden, Land Agent of the Southern Pacific Railroad Company in his lifetime. He died several months ago. I am familiar with his signature as I have seen him write his name many times.

I identify his signature to Exhibit No. 166, a letter purporting to be dated January 19, 1903, and addressed to Mr. Charles W. Eberlein, 120 Broadway, New York.

P. G. WILLIAMS

Sixty-ninth Witness for Defendants. San Francisco.

Direct Examination.

I am an auditor of the Associated Oil Company and have been since September 1st, 1908. I have charge of the accounts of that company and have kept an account of the expenditures of the Associated Oil Company in the Elk Hills for development work there and

have prepared a statement from these original accounts showing the total amount expended there.

My company maintains a very elaborate system of accounting whereby expenses are apportioned to each piece of work that is being carried on so that we are enabled to charge to an individual well its own expense. The charges incurred in the development of the Elk Hills property were segregated absolutely from those situated elsewhere.

Up to April 30, 1913, the total amount expended by the Associated Oil Company in development in the Elk Hills was \$517,613.94. No portion of this was expended for purchase of the lands. [2555]

(The statement referred to introduced in evidence, and marked Defendants' Exhibit No. 167, and is as follows:)

“ASSOCIATED OIL COMPANY
STATEMENT OF EXPENDITURES ACCOUNT
DEVELOPMENT IN ELK HILLS
AS OF APRIL 30, 1913.

	<i>Labor</i>	<i>Material</i>	<i>Total</i>
Structures and			
Buildings	\$1,801.61	4,038.67	5,840.28
New Oil Lines	4,631.68	40,993.80	45,625.48
New Oil Wells			
(Statement			
No. 1)	79,067.10	94,239.47	173,306.57
New Oil Wells			
(Statement			
No. 2)	77,418.49	127,325.81	204,744.30

New Water Systems	6,430.87	40,649.12	47,079.99
New Telephone Systems	61.37	543.05	604.42
Miscellaneous Improvements	7,334.67	4,546.88	11,881.55
	<hr/>	<hr/>	<hr/>
	176,745.79	312,336.80	489,082.59
Miscellaneous Expenditures accruing in period to date			
account of litigation			28,531.35
			<hr/>
Grand Total All			517,613.94
			<hr/>

Issued by Accounting Department,
 San Francisco, Calif.
 July 2, 1913.

Correspondence in relation to
 this statement should be ad-
 dressed to the Auditor."

I have not prepared a segregated statement showing the individual costs of each of the wells up to April 30, 1913, but I did prepare such a statement up to December 31, 1912, from which it appears that well No. 3 in section 24 of township 30-23 cost \$56,831.78. Well No. 1 in section 26 of the same township cost \$57,725.33, and Well No. 1 in section 30 of township 30-24 cost \$66,131.53.

I have also prepared from our records, statements of the production of the Associated Oil Company's wells in the Elk Hills. These statements were made

up from regular reports or letters of advice sent in by the superintendent in charge from [2556] time to time. These wells were distinct from our regularly producing wells as they were producing when they were still being drilled and we have a form for reporting production of that kind from which these statements were taken. These reports were received in the regular course of our business.

Based upon these reports, the total production of well No. 1 in section 30 of township 30-24 was as follows:

January, 1912	687 barrels
February,	560.70
March,	320
April,	130.45
May,	204
June,	73
July,	260
August,	30
<hr/>	
Total	22,651.15

Similar reports show the production of Well No. 1 in section 26 of township 30-23 to have been as follows:

"September, 1911	680 barrels
October,	730
November,	327
December,	333
January, 1912	256.09
February,	229.98

March,	210.73
April,	224.53
May,	219.74
June,	200.
July,	360.08
August,	303
<hr/>	
Total	4,074.15''

Similar reports show the production of well No. 3 in section 24 of township 30-23 to have been as follows:

“May, 1912	240 barrels
June,	2,965
July,	247
August,	150

Total, 3,602''

[2557]

(Defendants' Exhibit No. 168-LL.)

“ASSOCIATED OIL COMPANY
COMPANY
BUSINESS

In your reply please refer to

(Rubber stamp: File No. 37-1-3

T.F.J. FEB 12 1912)

Fellows, Calif. Feb. 10th, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif. (In pencil: Bunker)

Dear Sir:

The following is monthly production report of Elk Hills Sec. 30, well No. 1, for the month of January:

Elk Hills Sec. 30

Oil on hand Feb. 1st, in E. H. Oil Line No. 1	348.00
In Sump Hole,	150.00
Oil used for fuel,	189.00
	<hr/>
	687.00
Oil on hand Jan. 1st, 1912	000.00
	<hr/>
Net production	687.00

The 348 barrels referred to above were run into Elk Hills Oil Line No. 1, and did not reach the tanks on the Pioneer Midway.

The 150 barrels are on hand in the sump hole at Sec. 30, E. H.

Yours truly,

CLG/W

L. J. King R.

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2558]

ASSOCIATED OIL COMPANY

Company Business

In your reply please refer to
File No. 37-3-1

Fellows, Calif. March 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Sec. 30, well No. 1, production for the month of February, 1912:

Elk Hills Sec. 30 Well No. 1

Oil on hand March 1st, In line	348.00
Oil on hand in tank No. 10454	181.70
Oil on hand in Sump	120.00
Fuel burned,	194.00
Fuel delivered through line to Lake Sta. A.	65.00
	<hr/>
	908.70
Oil on hand in line Feb. 1st, 1912	348.00
	<hr/>
	560.70

Oil on hand in Tank No. 10454, both Sec. 26 and Sec. 30, 496.70 net barrels.

Yours truly,

CLG/W.

L. J. King W.

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2559]

ASSOCIATED OIL COMPANY

CARBON COPY

37-3-1

DUPLICATE

Fellows, Calif. April 5th, 1912.

(RUBBER STAMP: RECEIVED

APR 8, 1912)

Mr. P. G. Williams, Auditor,

San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Sec. 30, well No. 1, production, for the month of March 1912:

Elk Hills Sec. 30, Well No. 1

Oil on hand April 1st, 1912	None
Fuel Burned,	190.00
Oil on hand in Sump,	250.00

440.00

Oil on hand March 1st,	120.00
------------------------	--------

Net production	320.00
----------------	--------

Oil on hand in tank No. 10454, both Sec. 26, well No. 1, and Sec. 30, well No. 1,	439.49 bbls.
--	--------------

Yours truly,

CLG/W.

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2560]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber Stamp: T.F.J

May 4 1912)

In your reply please refer to
File No. 37-3-1

Fellows, Calif. May 3rd, 1912

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of production of A. P. Co.
Elk Hills, Sec. 30, Well No. 1, for the month of April
1912:

*Production**A. O. Co., Elk Hills, Sec. 30, Well No. 1*

Oil on hand May 1st, 1912.

Fuel Burned, 93.00

Oil on hand in Sump Hole 250.00) unable to

Delivered to A. O. Gathering Syst. 37.45) check

380.45

Oil on hand April 1st, 1912, in sump, 250.00

Net Production 130.45

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2561]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber Stamp: T.F.J.

JUN 4 1912)

In your reply please refer to
File No. 37-3-1

Fellows, Calif., June 3rd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Division, Sec.
30 Well No. 1, production for the month of May, 1912:*Elk Hills, Sec. 30, Well No. 1, Production. bbls.*

Oil on hand June 1st, 1912 (in sump) 150.00

Fuel Burned Sec. 30, Well No. 1, (in ink: Can- not check)	54.00
--	-------

204.00

Oil on hand May 1st, 1912,	None
----------------------------	------

Net production	204.00
----------------	--------

Yours truly,

CLG/W.

L. J. King,

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2562]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. July 2nd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif.

(Rubber stamp: T.F.J.

Dear Sir:

JUL 3 1912)

The following is report of Elk Hills Sec. No. 30,
Well No. 1 Production, for the month of June, 1912:

JUNE 1912

Elk Hills Sec. 30, Well No. 1, Production.

Oil on hand July 1st, 1912 (In sump)	80.00
Fuel Burned, (Del. from Sec. 30, Well No. 1)	60.00 'Oper
Delivered to Lake Station A	83.00

223.00

Oil on hand June 1st, 1912,	150.00
-----------------------------	--------

Net Production	73.00
----------------	-------

Yours truly,

CLG/W.

L. J. King,

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2563]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. August 2nd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif. (Rubber Stamp: T.F.J.)

Dear Sir:

AUG 5 1912)

The following is report of A. O. Co. Elk Hills Sec. 30, Well No. 1, Production for the month of July, 1912:

JULY

A. O. Co. Elk Hills Sec. 30, Well No. 1 Production

Oil on hand August 1st, 1912,	225.00
-------------------------------	--------

Fuel Burned,	50.00
--------------	-------

Delivered to A. O. Gathering System,	65.00
--------------------------------------	-------

340.00

Oil on hand July 1st, 1912,	80.00
-----------------------------	-------

Net Production	260.00
----------------	--------

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2564]

“ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. Aug 27th, 1912

T.F.J.

(Rubber stamp: AUG 28 1912)

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of A. O. Co., Elk Hills,
Sec. 30, Well No. 1, production from Aug. 1st, 1912,
to Aug. 5th, 1912:

A. O. Co., Sec. 30, Well No. 1, Elk Hills Production

Oil on hand August 5th, 1912,	20.00
Fuel Burned,	25.00 Drill
Delivered into Line, Gathering Syst.	210.00
	<hr/>
	255.00
Oil on hand August 1st, 1912	225.00
	<hr/>
Net Production	30.00

Yours truly,

CLG/W.

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2565]

(Defendants' Exhibit No. 169 O LL.)

“ASSOCIATED OIL COMPANY
CARBON COPY (In pencil: 9,100 E.H.)
DUPLICATE

(RUBBER STAMP: RECEIVED
OCT 901911)

ASST. GEN. MGR. 37-3-1

Fellows, Oct. 7th, 1911.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is production report of Elk Hills
Sec. 26, Well No. 1.

Oil on hand Sept. 1st,	None
Fuel Burned	680 Bbls.
Oil on hand Oct. 1st,	None
	—
Net Production	680

All of this oil was used for fuel.

Yours truly,

L. J. King, Supt.

cc-W.S.P.

F.B.H.

A.F.L.B.

[2566]

ASSOCIATED OIL COMPANY

CARBON COPY (Rubber stamp: RECEIVED
DUPLICATE NOV 4 1911

ASST. GEN. MGR.)

(In pencil: 9,100 Elk Hills)

Fellows, Calif. Nov. 3rd, 1911.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

Below I give you *Elk Hills Sec. 26 Well No. 1*
Production Report for the month of October, 1911.

Elk Hills, Sec. 26, Well No. 1

Oil on hand Nov. 1st, 1911	155.00
----------------------------	--------

Fuel Burned	575.00
-------------	--------

	730.00
--	--------

Oil on hand Oct. 1st, 1911
----------------------------	-------

Net Production	730.00
----------------	--------

This well produced 730 net bbls. of oil during October, of this amount 575 bbls., was used for fuel, balance of 155 bbls. being pumped into the line. On the morning of the first I finished out the oil line with water, the oil being received in a tank at Pioneer Midway. The amount reaching there being 425 bbls. 155 bbls. of this amount belonging to the Elk Hills well, balance of 270 bbls. belonging to the Pioneer Midway Oil Co., Cons. they having previously pumped it into the line finishing fuel.

Yours truly,

cc-WSP-FBH-AFLB-
[2567]

L. J. King
Supt.

ASSOCIATED OIL COMPANY

(In pencil: 9,100 E.H.)

(Rubber Stamp: RECEIVED DEC 12 1911

ASST. GEN. MGR.)

CARBON COPY
DUPLICATE

Fellows, Calif. Dec. 9th, 1911.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is production of the Elk Hills Sec.
26, Well No. 1:

Oil on hand Dec. 1st, 1911	60.00
Oil Delivered to A. O. Gathering Syst.	155.00
Oil running into line running from Elk Hills to Pioneer Midway	267.00
	<hr/>
	482.00
Oil on hand Nov. 1st, 1911	155.00
	<hr/>
Total Production	327.00

Referring to the amount of 267 bbls. This is in the line which runs from Sec. 26 to the Pioneer Midway. In October I flushed oil out of the line with water. I then bled the line, and put 267 bbls. of oil in to the line, which is not sufficient to fill it.

The 60 bbls. are in the small tank at Elk Hills.

Yours truly,

CLG/W
CC-WSP
FBH
AFLB
LJK

L. J. KING
Supt. Midway Div.

(In pencil: 9,100)

(Rubber stamp: RECEIVED JAN 5 1912

ASST GEN MGR.) 37-3-1

Fellows, Calif. Jan. 3rd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif.

Dear Sir:

Below I give you monthly report of production,
Elk Hills Division, for the month of December, 1911:

Elk Hills Division Production

Oil on hand Jan. 1st, 1912	130.00
----------------------------	--------

Fuel Burned at Sec. 30 & 24, and	
----------------------------------	--

Lake Station A.	263.00
-----------------	--------

	393.00
--	--------

Oil on Hand Dec. 1st, 1911,	60.00
-----------------------------	-------

Net Production	333.00
----------------	--------

Yours truly,

CLG/W.

L. J. King

cc-AFLB

Superintendent

WSP

FBH

[2569]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: In your reply please refer to
T.F.J. Feb 5 1912) File No. 37-3-1

Fellows, Calif. Feb. 3rd, 1912.

Mr. P. G. Williams, Auditor, (In pencil: Bunker)
San Francisco, Calif.

Dear Sir:

The following is report of the Elk Hills Division production, for the month of January, 1912:

Elk Hills Sec. 26, Well No. 1

Oil on hand Feb. 1st, 1912,	185.02
Fuel Burned E.H. Sec. 26, W. No. 1	37.17
“ “ “ “ 24, W. No. 1	51.30(In ink Drill
“ “ “ “ Lake Station	
“A”	112.60
	<hr/>
	386.09
Oil on hand Jan. 1st, 1912	130.00
	<hr/>
Net Production	256.09

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Division.

FBH

AFLB

[2570]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif., March 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Sec. 26, well No. 1 production for the month of February 1912:

Elk Hills Sec. 26, Well No. 1

Oil on hand March 1st,	000.00
Fuel Burned,	20.00
Fuel Del. to Lake Sta. A by wagon	30.00
“ “ “ “ “ “ Pipe Line	50.00
Pumped to tank 10454	315.00
	<hr/>
	415.00
Oil on hand Feb. 1st, 1912,	185.02
	<hr/>
	289.98

Oil on hand in tank No. 10454, both Sec. 26, and Sec. 30, 496.70 net barrels.

Yours truly,

CLG/W

L. J. King W.

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2571]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
(Rubber stamp: File No. 37-3-1
T.F.J. APR 8 1912)

Fellows, Calif. April 5th, 1912.

Mr. F. G. Williams, Auditor,

San Francisco, Calif. (In pencil: Bunker)

Dear Sir:

The following is report of Elk Hills Sec 26, Well No. 1, production for the month of March, 1912:

Elk Hills Sec. 26, Well No. 1

Oil on hand April 1st, 1912	75.73
Fuel Burned,	19.92 (In ink Oper)

Fuel Delivered to Lake Station	
--------------------------------	--

“A”	115.08
-----	--------

210.73

Oil on hand March 1st, 1912,	None
------------------------------	------

Net production	210.73
----------------	--------

Oil on hand tank 10454, both Sec. 26, well No. 1, and Sec. 30, well No. 1,	439.49 bbls.
---	--------------

Yours truly,

CLG/W.

L. J. King,

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2572]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: In your reply please refer to
T.F.J. May 4 1912) File No. 37-3-1

Fellows, Calif. May 3rd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif. (In pencil: Bunker)

Dear Sir:

The following is report of production A. O. Co. Elk Hills, Sec. 26, Well No. 1, for the month of April, 1912:

Elk Hills, Sec. 25, Well No. 1, Production.

Oil on hand May 1st, 1912, 50.26

Fuel Burned, 10.00

Fuel Delivered to Lake Sta. "A" 68.00

Fuel Delivered to Sec. 24, 172.00

300.00

Oil on hand April 1st, 1912, 75.73

Net Production 224.53

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2573]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: In your reply please refer to
T.F.J. JUN 4 1912) File No. 37-3-1

Fellows, Calif., June 3rd, 1912.

Mr. P. G. Williams Auditor

San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Division, Sec. 26, Well No. 1, Production for the month of May, 1912:

Elk Hills Sec. 26, Well No. 1 Production.

Oil on hand June 1st, 1912 100.00

Fuel Burned Sec. 26, Well

No. 1, 10.00

Delivered to Sec. 24, Well

No. 1, fuel 60.00 (In ink: car)

Fuel Delivered to Lake Sta-

tion "A" 100.00

270.00

Oil on hand May 1st, 1912 50.26

Net Production 219.74

Yours truly,

CLG/W

L. J. KING,

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2574]

ASSOCIATED OIL COMPANY
COMPANY BUSINESSIn your reply please refer to
File No. - - 37-3-1

Fellows, Calif. July 2nd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif. (Rubber stamp: T.F.J.)

JUL 3 1912)

Dear Sir:

The following is report of Elk Hills, Sec. 26, well
No. 1, production, for the month of June, 1912:*JUNE 1912**Elk Hills Sec. 26, Well No. 1, production*

Oil on hand July 1st, 1912, 225.00

Fuel Burned, (Del. from Dec. 26, Well No. 1)	10.00 (In ink Oper)
Delivered to Sec. 24, Well No. 3, Fuel,	65.00
	<hr/>
	300.00
Oil on hand June 1st, 1912,	100.00
	<hr/>
Net Production,	200.00

Yours truly,

CLG/W.

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2575]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif., August 2nd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif.

(Rubber stamp: T.F.J.
AUG 5 1912)

Dear Sir:

The following is report of A. O. Co., Elk Hills, Sec.
26, Well No. 1, Production for the month of July
1912:

*JULY**A. O. Co., Elk Hills, Sec. 26, Well No. 1, Production*

Oil on hand August 1st, 1912,	375.00
-------------------------------	--------

Fuel Burned, at Sec. 26, Well No. 1,	85.00
--------------------------------------	-------

Fuel Furnished Lakd Sta. "A"	70.00
------------------------------	-------

Delivered to A. O. Co., Gathering System	55.08
---	-------

585.08

Oil on hand July 1st, 1912	225.00
----------------------------	--------

Net Production,	360.08
-----------------	--------

Yours truly,

CLG/W.

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2576]

“ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to

(In rubber stamp: File No. 37-3-1

T.F.J. AUG. 28 1912.) Fellows, Calif. Aug. 27th, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif.

Dear Sir:

The following is report of A. O. Co., Elk Hills Sec. 26, Well No. 1, production from Aug. 1st, 1912, to Aug. 21st, 1912:

A. O. Co. Elk Hills, Sec. 26, Well No. 1, Production

Oil on hand August 21st, 1912, 25.00

Fuel Burned at Sec. 26, Well

No. 1 208.00 (In ink)

Fuel Delivered to Lake Sta. "A" 70.00 Drilling

Delivered to A. O. Gathering

System 374.45

677.45

Oil on hand August 1st, 1912, 375.00

302.45

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2577]

(Defendants' Exhibit No. 170 LL.)

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: In your reply please refer to
T.J.F. JUN 4 1912) File No. 37-3-1

Fellows, Calif. June 3rd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Division, Sec. 24, Well No. 3, Production for the month of May, 1912:

Elk Hills Sec. 24, Well No. 3, Production. Bbls.

Oil on hand June 1st, 1912, 185.00

Fuel Burned Sec. 24, Well No.

No. 3* 90.00' cannot

———— check

240.00

Oil on hand May 1st, 1912, None

Net Production, 240.00

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

*See wire C. L. Giborey 6/5/12 E.C.W.

[2578]

“ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. July 2nd, 1912.

Mr. P. G. Williams, Auditor,

San Francisco, Calif. (Rubber stamp: T.F.J.)

Dear Sir:

JUL 3, 1912)

The following is report of Elk Hills, Sec. 24, Well
No. 3, production for the month of June 1912.

JUNE 1912

Elk Hills, Sec. 24, Well No. 3 Production.

Oil on hand July 1st, 1912, 3000.000

Fuel Burned (Del. from Sec. 24, Well No. 3	115.00 'Drilling
	<hr/>
	3115.00
Oil on hand June 1st, 1912,	150.00
	<hr/>
	2965.00

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2579]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. August 2nd, 1912.

Mr. P. G. Williams, Auditor,

(Rubber Stamp: T. F. J.

Dear Sir:

AUG. 5 1912)

The following is report of A.O.Co. Elk Hills, Sec.
24, Well No. 3, Production for the month of July,
1912:

JULY

A.O.Co. Elk Hills, Sec. 24, Well No. 3, Production

Bbls.

Oil on hand August 1st, 1912 3100.00

(in ink: Drilling)

Fuel Burned,	147.00
	<hr/>
	3247.00
Oil on hand July 1st, 1912	3000.00
	<hr/>
Net Production	247.00
	<hr/>

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2580]

Mr. W. F. Herrin was made President of the Associated Oil Company either in 1909 or 1910. The roster of the officers in the Associated Oil Company is in my custody. I have a manual of the officers of each company. I am the auditor of other companies as well as Secretary of all proprietary and subsidiary companies—fourteen in all, I believe. The other companies that I am auditor of are the Associated Pipe Line Company, Associated Supply Company, Associated Water Company, Bakersfield Iron Works, Shreeves Oil Company, Sterling Oil & Development Company, Pioneer Midway Oil Company, Consolidated West Coast Oil Company, Amalgamated Oil Company, Salt Lake Oil Company of California, Arcturus Oil Company and the Recruit Oil Company. When I spoke of the proprietary Companies, I meant where the Associated owned all the stock and when I spoke of the subsidiaries it was where they did not

necessarily control, but owned part of the stock. The Associated Oil Company owns a control of the capital stock in all the companies I have mentioned except the Associated Pipe Line, stock in that company being owned half by the Kern Trading & Oil Company and the other by the Associated. I have official relations with the Southern Pacific Company, that [2581] is, I do business with them in connection with the Auditing department. That is, the Southern Pacific Company prescribe the method of accounting and that necessarily follows down through all the other companies. This business is done through the Auditor of the Southern Pacific, Mr. T. O. Edwards. Mr. Segar was the Auditor of the Southern Pacific at the time I first went there and Mr. Edwards has pursued the same custom with respect to the method of prescribing the method of auditing for the Southern Pacific and its subsidiaries, that is, subsequent to the time the Southern Pacific obtained the majority stock ownership of the Associated Oil Company. I don't remember the exact date but I think it was in 1911. It was at that time that this custom of prescribing the method of auditing began. I am Secretary for the Associated Oil Company and of all the other subsidiary companies of which I am Auditor. (At this point Mr. Lewers read in evidence Defendants' Exhibit 171 and which is in words and figures, as follows:

‘THE NEW YORK TIMES

New York, Wednesday, May 29, 1912.

SAYS RAILROAD STOLE OIL LAND FORTUNE

“Criminal Conspiracy” Among Southern Pacific Officials is Charged by Wickersham.

\$15,000,000 WAS THE STAKE

Developments in Suit, Begun in 1910, Are Declared “Sensational”—

Nation May Regain Land. [2582]

WASHINGTON, May 28.—In a public statement to-day Attorney General Wickersham declared that the Government’s suit against the Southern Pacific Companies for the recovery of valuable oil lands in Southern California has brought “sensational and startling disclosures.”

Testimony by witnesses subpoenaed by the Government, he says, “presents a remarkable picture of criminal conspiracy among high officials of the Southern Pacific Company to acquire from the United States under an agricultural grant oil lands valued at \$15,000.00.”

The statement was issued after a conference between the Attorney General and Willis N. Mills, special assistant in charge of the case, concerning recent developments in the suit. The proceedings were begun by direction of Mr. Wickersham in December, 1910, to set aside patents and revest in the Government title to 6,000 acres of valuable oil-bearing lands in the Elk Hills country of Kern County, Cal. The

lands are within the indemnity limits of the grant of July 27, 1866, to the Southern Pacific Railroad Company, in aid of the construction of the road. The original granting act, the Attorney General's statement says, excluded all mineral lands, the intention of Congress being to grant only agricultural lands, reserving mineral lands to the United States for all time.

The Government lawyers are confident, the statement avers, that the disclosures made by the testimony of Charles W. Eberlein "will result in the restoration to the public domain of a vast tract of the most valuable oil lands in the State of California." [2583]

As Acting Land Agent of the Southern Pacific Railroad Company, the statement alleges, Mr. Eberlein saved from the fire following the San Francisco earthquake all the secret correspondence and documents relating to the conspiracy to defraud the Government out of these lands.

Upon being put on the stand, the statement continues, Mr. Eberlein produced correspondence between himself and the late W. D. Cornish, Vice-President of the Southern Pacific, and C. H. Markham, General Manager of the road, "establishing previous knowledge on the part of the railroad company officials of the mineral character of the land selected, and indicating an intention to keep the fact from the Government officials until after patents should be secured"). [2584]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: In your reply please refer to
T.F.J. AUG 28 1912) File No. 37-3-1
(In pencil 2500
500)

Fellows, Calif., Aug. 27th, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, California.

Dear Sir:

The following is report of A. O. Co. Elk Hills, Sec. 24, Well No. 3, production, from August 1st, 1912, to August 21st, 1912:

<i>Production, A. O. Co., Elk Hills, Sec. 24, Well No. 3</i>	
Oil on hand August 21st, 1912	3085
Fuel Burned,	165.00 Drill
	<hr/>
	3250.00
Oil on hand August 1st, 1912,	3100.00
	<hr/>
Net Production	150.00

Yours truly,

CLG/W

L. J. King

cc-WSP

Supt. Midway Div.

FBH

AFLB

[2585]

W. E. WHITE, called on behalf of the defendants, being first duly cautioned and solemnly sworn to testify the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

By Mr. Lewers:

Q. Your name is W. E. White, is it not?

A. Yes, sir.

Q. And by what company are you employed at the present time?

A. The Associated Oil Company.

Q. How long have you been employed with the Associated Oil Company?

A. By the Associated Oil and subsidiary companies, for the last ten years, practically.

Q. What position do you now hold?

A. Chief clerk to the chief engineer.

Q. And who is the chief engineer?

A. Arthur F. L. Bell.

Q. Does he hold any other title than chief engineer, or has he held?

A. He has until June 1st last.

Q. What title did he hold prior to the 1st of June of this year?

A. Field manager.

Q. And as such field manager, over what did he have jurisdiction?

A. He had entire charge of the field operating and development of all Associated Oil Company properties.

Q. And where were the records of his office kept? That is, in whose charge were they? [2586]

A. They were kept in his office, under his and my own charge.

Q. And what, in the ordinary course of carrying on the business of drilling and operating wells—state in a general way what records were kept of drilling operations.

A. Well, complete records of the logs, locations, maps, and so on, of production, and all records incident to the development of the field.

Q. How were reports, if any, made to your office from the field?

A. Some were written reports and others were telegraphed.

Q. And how frequently were those telegraphed in?

A. Well, we had daily reports of operations, drilling, and so on, and monthly reports of production.

Q. These daily reports that you received by wire covered what territories?

A. Covered all the different fields that we were interested in, with the exception of the Kern River field and Santa Barbara county.

Q. Were these telegraphic reports confirmed in any way?

A. They were confirmed by written reports.

Q. How often were those sent in?

A. They were supposed to be sent in daily, but it frequently happened that they would be two or three days late.

Q. After you received these reports, what was done with them in your office?

A. They were filed and put away.

Q. Well, was any other record made in your office from those reports?

A. As far as the drilling of wells was concerned we kept—wrote up logs, and also made graphic logs of those drillings.

Q. By whom were these reports made by wire to your office? [2587]

A. By the superintendent of the division involved.

Q. Did you have any reports in your office of drilling operations in the Elk Hills?

A. Yes; we had daily reports.

Q. By whom were those reports made?

A. By Superintendent King, of the Midway division.

Q. In his absence from the field, in case that should occur, did you receive those reports?

A. Yes.

Q. By whom would they be made then?

A. By his chief clerk.

Q. Was any distinction made, or was there any difference in the manner of sending in reports from the Elk Hills operations from that prevailing in other places where you were drilling wells in that vicinity?

A. No difference.

Q. Do you now have in your office the telegraphic and other reports that were sent in on the drilling of these wells in the Elk Hills?

A. Yes.

Q. Have you prepared from the records that were sent in in this way of operations in the Elk Hills, any graphic log or logs of any of the wells in those hills?

A. Yes; we have prepared logs of all those wells, that is, the three deep wells involved.

Q. You are referring to the wells in Sections 24 and 26 in 30-23 and in Section 30 of 30-24?

A. Yes.

Q. Under whose directions were those graphic logs prepared?

A. They were prepared at my instance.

Q. You say they were "prepared at your instance". What do you mean by that? [2588]

A. As matter of office record I kept them up or had them kept up for the benefit of every one concerned.

Q. Now, I show you a blue-print and ask you what that is

A. That is a resume of the operations of well 1 on Section 30, Township 30-24.

Q. Prepared from what?

A. Prepared from the daily drilling reports and reports of production.

Q. And what period does that cover?

A. That covers the period from the beginning of drilling until they shut down; in other words, from July 30, 1910, to August 23rd, 1912.

Q. And does that graphic log faithfully or truthfully represent the reports and records of daily drilling operations and productions received in your office upon these wells?

A. It does.

Q. Upon that well?

A. Yes.

Q. And what does the last column, that is, the column—or the figures, rather—at the bottom of each of the columns represent?

A. That is to show the actual monthly net production.

Mr. Lewers—We offer this graphic log in evidence. And I will state that I have all of the telegraphic and written reports and daily well reports here upon which that is based, and I shall offer similar graphic logs of the other two wells.

Mr. Mills—You intend to introduce the telegraphic reports, don't you?

Mr. Lewers—No, I don't; because, although I would like to dot it, it would involve incumbering the record with a mass of practically non-usable stuff—there is so much of it. It is mingled with all the other reports of all the wells in that [2589] territory.

Mr. Mills—I think we should be able to check the reports.

Mr. Lewers—I have them here, and you can make such use of them in that respect as you desire, but in the interest of shortening the record I prefer not to introduce them because they would simply uselessly incumber and greatly add to the expense of the trial without being of any assistance to the court.

Mr. Mills—We of course cannot assure ourselves that this is a correct resume of those logs without examining them.

Mr. Lewers—That is very true. I have them here.

Mr. Mills—I should want to do that before cross-examining this witness.

Q. You say that this was prepared at your instance?

A. I prepared that myself.

Q. You prepared it from the logs?

A. From the logs, daily reports.

Q. That is, you made the paper from which this is a blue-print?

A. Yes.

Q. And these are your figures on here, are they?

A. No; I didn't do the drawing myself, but I did a similar one from which that was made up; in other words, I collected the data and put it in that shape.

Q. Did you personally make up the sheet from which this is a blue-print, from the logs, without any one else's work?

A. Yes sir; I collected all the data, but the actual drawing of the lines I did not do myself.

Q. Well, the data, as I understand it, was collected in your office, to start with?

A. Yes sir.

Q. By that you mean you handed it to some one else to make the figures? [2590]

A. To make an exact copy; yes sir.

Q. Did you personally take each log and report on this particular well and make up the sum total without any one else doing any work on it?

A. Yes.

Mr. Mills—May I see the data from which this is made, now? (Papers handed to counsel.)

Q. Now, is this all relating to this one well?

A. No; that covers all the wells in the district.

Mr. Mills—Will you get out the logs from which you made this document?

Mr. Lewers—You will see each telegram covers a number of wells.

Q. By Mr. Mills—Well, just point out that from which you made this statement. (Witness indicates to counsel.) Does this statement include matters from each one of the papers in these eight packages?

A. No; it was taken practically entirely from this one, and this covers the dates. This was intended to be a resume of these daily reports.

Mr. Mills—I have no formal objection to the introduction of this summary constituting the offer of Defendants' Exhibit 172, purporting to show the record of the operations on well No. 1 in Section 30, 30-24, and what I understand to be some offers you will make on wells 24 and 26 of 30-23, in view of the fact that the defendants' counsel have produced the alleged daily reports and alleged daily logs from which the summary is prepared, with the understanding, however, that the originals of the reports and the daily logs be left here for checking and examination by government's counsel.

Mr. Lewers—As far as the custody of the original data from which these graphic logs were prepared is concerned, I can say [2591] that I have no author-

ity to take those for any considerable length of time out of the possession of the Associated Oil Company, nor has Mr. White, as I am informed, any authority to do that, but that this arrangement can be carried out, and, as I understand it, is the usual arrangement under situations of this kind: All of these telegrams, daily reports and other data on which these graphic logs are based will be retained in the office and the custody of the Associated Oil Company and open to the inspection, as carefully as may be desired, of the counsel for the government or any representative whom he may designate, at any convenient hour that may be agreed upon, and that as full an examination and checking as counsel desires may be made of those records in the office of the Associated Oil Company in San Francisco, but I have no authority—and that is my reason for making the suggestion—to dispose of them in any other way, as they are not my records.

Mr. Mills—I understand; and I don't want to discommode you. But, in view of your statement, I will have to take time now to ascertain whether I have any objection to make to this offer.

Mr. Lewers—Well, proceed with the examination. Our time is limited. You will have ample opportunity to make your examination at a later time. I want to complete the examination of this witness, so far as my direct examination is concerned, now.

Mr. Mills—Well, I shall object to your proceeding with the examination until I have time to inspect these documents and determine whether I want to object to this offer.

Mr. Lewers—I will agree that you may hereafter make your objection, without any question being raised as to the time your objection is made.

Mr. Mills—Suppose I offer these. I do offer these papers [2592] now, with the understanding that the Associated Oil Company may substitute copies, if they desire. I now make the offer of all these papers which have been handed to me by defendants' counsel, including a bunch of telegrams dated from June 29th, to November 30th, 1912; December 31st, 1911, to March 2, 1911; telegrams dated from October 9, 1911, to March 11, 1912; a bundle of letters running from April 27, 1910, to November 3, 1910; daily reports running from January 1st, 1912, to June 3, 1912; a bundle of telegrams from March 12th, 1912, to June 28th, 1912; daily log reports running from July 29, 1910, to May 5th, 1911; and a bunch of daily reports running from May 6th, 1911, to April 3, 1912: and I ask them to be identified by the Examiner.

Mr. Lewers—Mr. Examiner, these are all my documents and in my custody for the time being and belonging to the Associated Oil Company. Counsel for the government has no right to take them, and I have offered, and repeat the offer, that they shall be open to the inspection of counsel for the government as extensively as he desires. If he desires to have copies of these papers and will pay for them, we will arrange to have complete copies made, but I have no authority to consent to their being taken and put in evidence, nor has Mr. White any authority, and I feel that it is an attempt, in the absence of the court, to take advan-

tage of a situation, without any necessity for it, as no opportunity to examine them has been denied or will be denied, and for that reason I decline to surrender their possession to the Examiner.

Mr. Mills—I protest against the conduct of counsel for the defendants in seizing papers already introduced in evidence before the Examiner, and cite it as prejudicial misconduct.

Mr. Lewers—Well, will you pay for the copies?

Mr. Mills—I don't ask for copies, I want to see the originals. They are in the custody of the court now. I don't [2593] see how you can take them out.

Mr. Lewers—They are not in the custody of the court. No order of court has been made. If there is an order of court I will comply with it, of course. Furthermore, I brought these into court myself and I am personally responsible for them, and as long as no effort is made to prevent a full and complete examination I don't think that there is any occasion for counsel endeavoring to introduce what is obviously a mass of material nine-tenths of which refers to wells that are not involved in this controversy.

Mr. Mills—I don't care to introduce any portion of the documents which do not pertain to the wells in this particular area. The papers have been introduced and I see no power on your part to take them out of the custody of the court.

Mr. Lewers—Mr. Examiner, will you mark this as Graphic Log with its appropriate exhibit number?

The graphic log last referred to and offered in evi-

dence is marked "Defendants' Exhibit 172—L. L."

Mr. Mills—I call upon the Examiner now to know whether he intends to permit counsel for defendants to remove from his custody these papers and documents.

Mr. Lewers—They have not been in the Examiner's custody yet. They have been in my custody. If you desire to have any order of court made, you can get that order; but in the meantime I have not withdrawn my suggestion.

Mr. Mills—Will you leave these papers here in the custody of the Examiner until I can get an order from the court?

Mr. Lewers—I have no authority to do that. I have authority to bring them here so that you may see what they are and to arrange for an examination of them as complete as you desire. [2594] My authority goes no further.

Mr. Mills—What is your ruling, Mr. Examiner? Are you going to permit these documents to be boldly and forcibly taken out of your possession?

The Examiner—As always, I, as Special Examiner, have very little effective authority in this matter. It seems to me, though, Mr. Lewers, that as you have brought these documents here and offered them for Mr. Mills' inspection, and as they are the basis of the document you have already introduced, you should afford Mr. Mills full opportunity to examine them, and I do not see any reason why you should be unwilling to leave them in my custody for that purpose.

Mr. Lewers—My authority is not the same as it would be in connection with documents belonging to myself; and, inasmuch as I am putting in testimony and the government is not, at this time, and inasmuch as the time for cross-examining has not yet arrived and these matters, or the papers that have been referred to, containing a great many matters that are not at all relevant and would unduly encumber the record if copied into it, I merely repeat that I will make any arrangement that I have authority to make, and I have the authority to make the arrangement that these will be open to the fullest inspection at any time that counsel for the government desires. I can do no more and I will do no less.

Mr. Mills—Mr. Examiner, I have made the statement that I was perfectly willing to have these documents left in your custody until Monday night, so that I may have opportunity to examine them for the purpose of checking up the accuracy of this offer of defendants' counsel, and that they be turned over promptly to Mr. Lewers or to the representative of the Associated Oil Company, as I have no desire to discommode either counsel for the defendants or the Associated Oil Company; but I do resent [2595] this high-handed attempt on the part of counsel to take from the custody of the Examiner these papers, which have been introduced solely because of his refusal to permit us to examine them.

Mr. Lewers—Have I refused to permit you to examine them?

Mr. Mills—You refused us the opportunity of ex-

amining them in the presence of the Examiner, refused to leave them with him here. Do you desire us to go over to the Associated Oil Company's office to make the examination, at such time as is convenient to the Associated Oil Company? I think I have been perfectly fair. I didn't want to introduce these documents at all, because I thought it might discommode you, but in view of your statement that you refused to permit me to examine them until Monday night in the custody of the Examiner in this case I introduced them solely to protect the government in the examination of this witness.

Mr. Lewers—Well, the Examiner will not be here until Monday night. It will involve the taking of these documents to Los Angeles.

Mr. Mills—The Examiner will be here until Monday night, if the government has to pay his fees. I don't think you are right in this matter, Mr. Lewers.

Mr. Lewers—You have seemed to interpret what I said in a way in which I didn't say it. Every opportunity will be given you to examine these as fully as you please. There will be no restriction placed on it. The only restriction will be that we don't expect you to examine them at any time except during office hours.

Mr. Mills—I don't expect to take the time to examine these reports months after the opportunity for making the objection has gone by. Now is the time to examine the reports. I think on reflection you will take a different attitude. [2596]

Mr. Lewers—I think on reflection you will withdraw your attempt to offer something in evidence that don't belong to you. That cannot be done, as you know.

Mr. Mills—Well, they are offered in evidence, and I think the court will sustain me in my attitude.

Mr. Lewers—If you desire to make the arrangement that they shall remain in the custody of the Examiner in San Francisco and the government will pay his fees during the period of your examination, I will endeavor to arrange with the Associated Oil Company, and I have not any doubt that when this is put up to them in that way they may be put in the possession of the Examiner with full opportunity for you to make such examination as you desire.

Mr. Mills—What do you mean by that? That I shall go to the Associated Oil Company?

Mr. Lewers—No; I said I will leave them in the possession of the Examiner.

Mr. Mills—The Examiner of the court.

Mr. Lewers—If you will pay his fees for holding them over here.

Mr. Mills—And you will leave them with him?

Mr. Lewers—I will leave them with him. I will endeavor to get permission to do so and I have no doubt I will be able to.

Mr. Mills—I want them left with him without your taking them out of court.

Mr. Lewers—He will be responsible for them.

Mr. Mills—I understand the Examiner will take

possession of them and you will talk with the Associated Oil Company and endeavor to get permission to accomplish that.

Mr. Lewers—Yes. And you will pay him for his services?

Mr. Mills—Yes. And you will not take them out of the possession of the Examiner? [2597]

Mr. Lewers—No.

Mr. Mills—Also, you will recall Mr. White for further cross examination if I so desire?

Mr. Lewers—At some later time that will be done. Mr. White is busy, but some convenient time will be found later for that. That was my original suggestion. There is no desire to restrain you from examining these matters as fully as you please.

Mr. Mills—The understanding is, then, Mr. Examiner, that these are to be left with you and the government is to pay your fees.

Mr. Lewers—Yes.

Q. Mr. White, I show you a similar chart or graphic log that purports to be of a well in Section 26, of Township 30-23, in the Elk Hills. That was prepared in the same manner as the one of the well in Section 30 of 30-24?

A. Yes; it was.

Q. Under your direction?

A. Yes sir.

Q. And by whom was the material compiled?

A. By myself.

Q. By Mr. Mills—That was compiled in the same

way, was it, as the other—with your own hand and without any assistance?

A. Yes.

Q. By Mr. Lewers—With the exception of the drawing?

A. Yes.

Q. You checked it, though, as your own?

A. Yes.

Mr. Mills—I have no objection to any of this excepting such objection as we may have after the examination of the log.

Mr. Lewers—I agree you may make any objection to the three charts, or anything concerned with them, at a later time, after [2598] you have examined the charts and are advised an objection is necessary. (Marked “Defendants’ Exhibit 173—L.L.”)

Q. I also show you a similar graphic log of the well No. 3 in Section 24 of Township 30-23, and ask you if that was prepared in the same way, in the same manner, from data in your possession.

A. It was.

Q. And checked by yourself, was it?

A. Yes sir. (Marked “Defendants’ Exhibit 174—L.L.”)

Q. Now, calling your attention to this last graphic log of the well on Section 24, from what did you obtain the foot-notes that appear upon that graphic log? Were those obtained, likewise, from the daily reports?

A. Yes. I am quite sure they appear on the daily report under this date.

Q. That is, I am referring particularly to the foot-note "A", where it says it "Flowed 350 (rate) which was run in to wash out hole." Foot-note "B", "Flowed 350 (rate) which was run into wash out hole". Foot-note "C", "Filled hole with oil from sump." Then foot-note which is starred, "All production this month pumped back into hole to hold back gas pressure." What is shown there as the net production of the well for the last month—the month of June, is it not, 1912?

A. Month of August.

Q. August, 1912?

A. It shows 150 barrels net.

Q. Have you made an estimate of the amount of oil that could be flowed back into the well of the size that that was?

A. Well, at the time they were flowing oil into the hole there was also oil coming out, and it is pretty hard to estimate the quantity that would flow in there, because part of it may go back, under pressure, into the sands from which it ori-[2599]ginated, again.

Q. Have you made any estimate as to the capacity of the well itself?

A. I have figured up the capacity of a hole of that size. With that sized casing it would be about one hundred and seventy-five barrels. But still it would take considerably more oil than that going into the hole, on account of part of it going back into the formation. At any rate, the hole itself would hold one hundred and seventy-five barrels, approximately.

Q. Were these wells, as far as the records of your office are concerned and show and as far as your own personal knowledge goes, handled any differently from any other wells that were being drilled in the field?

A. In what way do you mean "handled differently"?

Q. As to the effort made to obtain production.

A. No; they were handled the same as any other wells.

Q. Mr. Mills—Has this witness been qualified yet to know any such matter? I object to it because the witness has not qualified, so far, by direct testimony, to answer such a question.

Q. By Mr. Lewers—Was there any effort made to hinder or conceal the possible production of any of these wells?

Mr. Mills—That is also objected to, unless it is limited to his own knowledge.

A. No; not from my knowledge.

Q. By Mr. Lewers—Was there any effort made to the contrarary?

Mr. Mills—That also is objected to.

A. I don't quite understand you now.

Q. By Mr. Lewers—To endeavor to make them produce.

A. Every effort that I know that could be made was made.

Q. What efforts were made?

A. That is, reperforating, and testing and doing

every- [2600] thing that we know of to get them into some shape to produce. Some of the wells were tested several times, and reperforated, and so on.

Q. Do you know anything about the process of putting hot oil back into the well? Do you know anything about that?

A. Yes.

Q. Was that done with any of these wells?

A. Yes.

Q. What is the purpose of that?

A. In the well in 24—three—that was done to cut down the gas pressure.

Q. By Mr. Mills—Were you present at the time that was done?

A. No.

Mr. Mills—I object to that as hearsay, and move that the answers, so far as they related to what was strictly hearsay, be stricken out.

Q. By Mr. Lewers—Upon what do you base your answer that these efforts were made?

A. Well, on the records of our office, on the instructions that emanated from the field manager's office. We were in constant touch while the well was being drilled. Our instructions went from the field manager's office here.

Q. And were you familiar with those instructions?

A. Yes.

Q. And did that office receive reports back as to what had been done?

A. Yes; reports sometimes written and sometimes telephone conversations.

Q. Does Mr. Bell's office maintain connection with the operations in the field by means of telegraph or telephone?

A. Yes. [2601]

Q. What connection do you have?

A. We have both telephone and telegraph connection with Fellows, which is situated in the Midway field.

Q. Did you have prepared any other forms of logs from the data in your office?

A. We had graphic logs prepared, as we call them.

Q. What do you mean by a graphic log?

A. A diagramatic log drawn to scale.

Q. Do you mean a log drawn to scale and depth?

A. Yes, sir; casings, and so on.

Q. I show you what purports to be such a log of well No. 1 in 30, of 30-24, and ask you what you know about the preparation of that particular log.

A. It was prepared at my request by a draftsman employed in our office, and afterwards checked with the daily reports.

Q. Checked by whom?

A. Checked by myself and Mr. Jeffres.

Q. Do you mean Mr. E. J. Jeffres?

A. Yes.

Q. Who is now dead?

A. Yes.

Q. And what was the result of that checking, as to

whether or not this is an accurate representation of the results of the various reports received?

A. It agreed with the reports.

Q. And were similar logs, prepared in the same way, as to the other two wells, one in Section 24 and the other in Section 26 of 30-23?

A. Yes.

Q. And are these documents I hand you the logs which were prepared in that way?

A. Yes. Those are the two. [2602]

Mr. Lewers—I now offer these three graphic logs of the wells referred to, in evidence, and ask that they be marked with the appropriate numbers.

The logs last referred to and offered in evidence are marked, respectively, “Defendants’ Exhibits 175, 176 and 177—L. L.”

Mr. Mills—With the same understanding.

Mr. Lewers—Subject to the same understanding as the prior ones.

Mr. Mills—Subject to any objection after examining the logs.

Mr. Lewers—Yes.

Q. Do you receive any daily reports of drilling operations from the Elk Hills at the present time?

A. No; we are not drilling at the present time.

Q. Is there anything at all being done in the Elk Hills by the Associated Oil Company at the present time?

A. No.

Q. In the testimony this morning given by Mr.

Williams, in his cross-examination, he was asked with reference to what is known as pipeline No. 1. Do you know anything about the construction of that pipeline or where it runs?

A. Yes. That was a four inch line that ran from Pioneer, Midway, Section 30 of 31-23, to the Elk Hills.

Q. And to what section in the Elk Hills does it run?

A. Section 35, I believe it is, of 30-23.

Q. And where is pipeline No. 2?

A. Pipeline No. 2, as I remember it, connected with that line and ran to Buena Vista Lake station, where we had a pump station. [2603]

Q. And what was pipeline No. 2 used for?

A. For delivering fuel oil to the pump station at the Buena Vista Lake.

Q. And what was pipeline No. 1 constructed for?

A. No. 1 was for delivering fuel from Pioneer over to the Elk Hills.

Q. For whose use?

A. For our own and other companies who purchased from us.

Q. Why was that constructed?

A. For the purpose of delivering fuel oil.

Q. Is it not possible to bring fuel in in any other way?

A. We started in there hauling in wagons but it was too expensive that way. We had tank wagons. And we found it was cheaper to put in a pipeline than to haul in wagons.

Q. And was that the reason why this pipeline No. 1 was constructed?

A. Yes.

Q. I show you what purports to be a carbon copy of a letter dated July 13, 1910, addressed to Mr. O. Scribner, and purporting to be signed by Mr. Bell. Do you know where that came from and what that is?

A. That is a report or a recommendation to Mr. Scribner, assistant general manager, regarding the installation of the fuel line to the Elk Hills in place of the teams that had been used prior to that time.

Mr. Mills—I move that that answer be stricken, as not responsive to the question, an attempt to state the contents of a letter before it is offered in evidence.

Q. By Mr. Lewers—Where did this particular piece of paper come from? Out of what files?

A. It is out of one of the files of the field manager's office. [2604]

Q. From any file that is in your control?

A. Yes.

Q. Or in your custody?

A. Yes.

Q. And by whom was the original of that letter signed, if you know?

A. Signed by Arthur F. L. Bell.

Q. And was the original of that letter sent, that you know, to Mr. Scribner?

A. It was.

Mr. Lewers—We offer to read this in evidence and into the record.

Mr. Mills—All right.

Q. By Mr. Lewers—Was that letter written on or about the date it purports to be sent?

A. To the best of my recollection it was.

Q. By Mr. Mills—Where is the original of that letter now? Do you know?

A. It should be in Mr. Scribner's files.

Mr. Mills—I think I shall object, at the present time, to the introduction of this alleged copy of the original until the original is produced, and for the further reason that it is a self declaratory statement.

Mr. Lewers—I didn't produce the original because I didn't think any question would be raised upon that point.

“Associated Oil Company. Carbon copy duplicate. July 13, 1910. Mr. O. Scribner, Asst Genl Manager. Dear Sir: Referring to my letter to you of July 9th in the matter of installing a 4" oil line from the Elk Hills district to the Pioneer Midway lease, Sec. 30: At present, we are using five teams at a cost of \$50 per day or \$1500 per month; six months being estimated time of drilling a well in that field would mean a cost of \$9,000 for [2605] teams. It will therefore be seen—”

Mr. Mills—I object to your reading into the record any letter which is not left for examination by this court.

Mr. Lewers—All right. Then I will have a copy made of it for you.

Mr. Mills—I don't want a copy. I think the paper itself should be left in evidence.

Mr. Lewers—I mean I will have a copy made for our file and leave this, if that will suit. “It will therefore be seen that it will cost more to haul the oil then the amount we would lose by installing the pipe-line. If we strike oil we then have a line for pumping the oil to the storage on the Pioneer Midway lease. Yours truly, Arthur F. L. Bell, Field Manager.

cc. to Mr. Porter AFLB/Z P. S. On account of pipe delivered from Coalinga to Fellows being second-hand, we can get a special rate, which will reduce the net total loss on pipe line if installed, to \$6000.00. A. F. L. B.”

(Marked “Defendants’ Exhibit 178—L.L.”)

Q. Was that suggestion acted upon and was that pipe-line built?

A. Yes.

Q. In pursuance to it?

A. It was; yes.

Q. And do you know whether any oil was actually pumped through that pipeline from the Pioneer Midway into the Elk Hills?

A. Yes.

Q. And how large a quantity, if you know?

A. I couldn't say. We sold considerable of what we did pump, to other parties, besides our own fuel.

Q. Do you know whether any was pumped out?

A. You mean back through the line?

Q. Yes.

A. I think there was some run back. [2606]

Q. Was there as much pumped out as there was pumped in?

Mr. Mills—If you know of your own personal knowledge.

A. I don't know the figures. My belief is a great deal more went in than went out.

Mr. Mills—We object to your statement of what your belief is, Mr. White. I move that that answer be stricken out.

Mr. Lewers—I ask that it stand.

Q. When did you first become connected with the oil business in any form?

A. In, I believe, August, 1903.

Q. And where?

A. In San Francisco.

Q. With what company were you then connected?

A. With the Recruit Oil Company, a branch of the Associated.

Q. And from that time until the present have you been engaged in any other line of work?

A. No.

Q. From 1903, when you first began your connection, what were your duties for the first few years?

A. They were varied. I had no particular calling but simply "utility man," you might call it; looked after government lands and the interests of the company in that field.

Q. And in what field did you operate?

A. Well, I was, at different times, at Santa Barbara, Coalinga, Midway, Sunset and McKittrick.

Q. While you were in the field looking after lands, as you say, what would you do, what were you trying to do?

A. Mostly looking after government land.

Q. What do you mean by that?

A. Looking after open government land and taking care of locations we already had.

Q. Well, for what purpose did you desire to obtain that land? [2607]

A. Simply to obtain it for its oil land value, or its future.

Q. Were you at that time what is commonly called "a scout" in the field?

A. I presume you might term it that.

Q. And in your work in the Sunset, Midway and McKittrick districts, just what territory did you cover from 1903 on?

A. I covered all of that territory, at various times.

Q. Up to what years? What year was it, rather, that you quit this work?

A. I left there in 1909, I think, spring of 1909, although I have been down in the field many times since.

Q. Then prior to the time you quit the field work you were employed by the Associated Oil Company, were you?

A. Yes sir. More particularly the Recruit Oil Company.

Q. When was it that you became employed directly by the Associated Oil Company?

A. In 1909, when I came to San Francisco for headquarters.

Q. How frequently were you in the Sunset, Midway and McKittrick districts in 1903, '04 and '05?

A. Well, I was in that vicinity all the time, or practically all of the time. There were periods, though, when I would be away. I went to Santa Barbara county, San Pedro, and came to the city.

Q. Were you engaged during all of that time in looking for oil land?

A. Well, I was supposed, if I saw any, to report it, but my principal business was looking after our interests in the Carissa Valley.

Q. And where is that situated?

A. It is on the opposite side of Midway Valley.

Q. Across the range? [2608]

A. Across the Temblor Range, in San Luis Obispo county mostly.

Q. Were any operations for oil being carried on there at that time?

A. Nothing more than locating and doing assessment work.

Q. What companies were in there?

A. During what period did you want to know?

Q. 1903, '04 and '05 or later.

A. The Recruit Company was the only one in there during 1903 and '04, although there were other individual interests. After that the Union Oil Company and the Vishnu Oil Company came there.

Q. Well, in addition to the Associated Oil Company, what large companies were in either the Midway or Sunset or McKittrick fields in 1904, '05 and '06?

A. In addition to the Associated Oil Company?

Q. Yes.

A. Well, there was quite a number of them: 'The Chanslor-Canfield Midway Oil Company, that is now the Santa Fe Oil Company. They were the largest in the Midway. They were mostly small companies in the Sunset and Maricopa district. And the McKittrick had a number of companies, usually smaller companies.

Q. Well, was the Chanslor Canfield Company the only large or strong company that was in there at that time?

A. Well, they were the largest of them all, and they were graduated down from that to the smaller companies.

Q. Do you know whether the Chanslor-Canfield Company was making any effort at that time to obtain additional territory in that vicinity?

A. Yes; they were always obtaining additional territory whenever they could get hold of some other open land.

Q. And did they have the means to obtain that territory? [2609]

Mr. Mills—That is objected to, unless the witness can qualify to testify as to their financial condition.

Mr. Lewers—You may answer.

A. Judging by appearances, they had.

Q. And were there any other companies in there that had the means of acquiring additional lands for development purposes besides what they were already operating?

A. You mean other companies outside of the Union, the Associated and the ones I have already mentioned?

Q. Well, outside of the Chanslor-Canfield is what I was after. Was the Union one of those companies you have referred to?

A. Yes sir; the Union was in there.

Q. And was it in position financially, so far as you know, to obtain additional property?

A. I presume it was, because it was obtaining additional property.

Q. And were other companies in there obtaining additional property?

A. Usually the property was obtained by locators and then turned over to these companies, so it is pretty hard to answer the question, although the Associated, Union and Vishnu Oil Companies were getting whatever land they could.

Q. How many of those companies, to your knowledge, maintained agents or scouts to look out for the additional oil territory?

A. Well, the Union and the Associated were the only ones I know of.

Q. Were you acquainted with the general opinion prevailing throughout the oil districts from the Midway and up through McKittrick and in that

vicinity concerning the extent of the oil territory, in 1903, '04 and '05? [2610]

A. Yes; I have heard a good many expressions of opinion through there.

Q. What was the general opinion as to the extent of the oil territory?

Mr. Mills—That is objected to as calling for mere neighborhood gossip among people some of whom possibly were incompetent to express an opinion.

A. The general opinion prevailed that the oil belt was along the edge of the foothills in the Midway field.

Q. Along the edge of what foothills?

A. On the edge of the Temblor Range, you might call it.

Q. What was the opinion at that time as to the oil belt extending out in the Elk Hills?

Mr. Mills—That is, a general opinion, you mean, Mr. Lewers?

Mr. Lewers—Yes.

A. I never heard any one speak of the Elk Hills as being oil land.

Q. When did you first hear the Elk Hills discussed as possible oil land?

Mr. Mills—It is understood that objection goes to all this testimony?

Mr. Lewers—Yes.

A. I presume along in 1907 or '08 was the first time I had heard of it being spoken of, any more than, possibly, in the general way that people speak of any place as being possible oil land; but I never

heard of its being spoken of as possible oil land until 1907 or somewhere along in there.

Q. When did the Associated Oil Company go in there?

A. They went in there in the early part of 1910.

Q. Was there anything to prevent their going in there prior to that time?

A. No; although they had no locations in there. Still, [2611] they could have bought other locations for a very small amount of money.

Q. When did you yourself first go into the Elk Hills?

A. I believe it was along in 1905 or the early part of 1906.

Q. Was there anything, so far as you know, to prevent the Chanslor-Canfield people going into the Elk Hills, if they desired to?

Mr. Mills—That is objected to as irrelevant, incompetent and immaterial to any issue in this case.

A. No.

Q. By Mr. Lewers—Did they go into the Elk Hills at that time?

Mr. Mills—Same objection.

A. Not to my knowledge.

Q. By Mr. Lewers—Well, if they had done so would you have been in a position to know it?

A. Yes, if they had gone in on any extensive scale.

Mr. Mills—You might as well ask if John Smith mightn't have gone in. What difference does that make to the issues in this case? There was lots of

territory Chanslor and Canfield didn't go into that proved to be valuable.

Q. Was there not, Mr. White?

A. Yes.

Q. By Mr. Lewers—Did you make any effort to keep posted as to the general operations going on through that district?

A. Yes; we kept in touch in a fairly close way.

Q. Well, was it any part of your duty to keep in touch with development and new discoveries?

A. Yes.

Q. Or with prospective territory?

A. Yes; it was. [2612]

Q. What was the occasion of your going over into the Elk Hills the first time?

A. The first time I went over there we were going hunting and went down in through there the first time I went over there.

Q. And how long was it before you went in there again?

A. Oh, I should say six months, or such a matter, later.

Q. And what was the occasion of the visit at that time?

A. Well, one of the Chanslor-Canfield men wanted me to go over and see an oil sand, exposed oil sand, that he had located over there.

Q. Did you see it?

A. I saw something but I didn't know whether it was oil sand or not.

Q. And do you now know where that was situated?

A. No; I don't know what section it was on.

Q. Was it situated anywhere near any of the present wells that have been sunk by the Associated, to your knowledge?

A. I think it is in that vicinity, but I don't remember now just where it was located. I went over, a couple of years or a year or so after that and tried to find it, but could not do it.

Q. Under whose direction were you working in 1903, '04, '05 and '06?

A. Under the direction of Arthur F. L. Bell.

Q. And what position did he then hold and with what company?

A. He was manager of the Recruit Oil Company, and the chief engineer for the Associated.

Q. And in whose jurisdiction was the determination of new territory that was to be taken up for oil purposes?

A. Well, he reported on them and acted in the capacity of geologist for the Associated.

Q. When was it that people first began to go into the Carissa Valley district that you have referred to? [2613]

Mr. Mills—That is objected to as immaterial to any of the issues in this case, the Carissa Valley being twenty or thirty miles distant from the lands in suit and across a mountain chain.

A. The first time any of the oil companies went in, that I know of, was ourselves, in 1903.

Q. By Mr. Lewers—How is the Carissa district situated with reference to its accessibility under conditions that existed in 1903?

A. Well, it was about forty miles from the nearest town, forty or forty-five miles, and there was no water or accommodations of any kind in there.

Q. Was it more or less accessible to the existing towns and sources of supply than the Elk Hills at that time?

A. No; it was not as accessible, by any means.

Q. What, if any, indications were there then known or discovered in the Carissa district that led people to go in there looking for oil?

Mr. Mills—Same objection.

A. Well, in one case we had heard of and seen several large oil sands—at least we had heard of these oil sands and when we went in there we found them—surface indications.

Q. By Mr. Lewers—Describe the extent of those in a general way that you found in there.

A. Well, they were scattered along the base of the foothills of the Temblor Range there for a distance of probably fifteen miles at various points; not continuous.

Q. Are they oil sands?

A. Yes.

Q. Well, how do you know?

A. Because they test out under chloroform tests, and so on.

Q. And how thick were any of those oil-sands that you [2614] found in there?

A. Well, they varied a great deal. The particular one I saw when we first went in there was probably fifteen or eighteen feet thick, although it was badly broken up. On account of the dip you could not tell just how thick it was. I should judge in the neighborhood of fifteen or eighteen feet.

Q. And were there any others that were thicker than that?

A. Yes; we afterwards found some that were thicker than that still. That is, not one continuous body of oil-sands but probably two or three stratified oil sands.

Q. How many wells were sunk in the Carissa district that you know of?

A. There are three outside of the shallow pot-holes that have been put down in there. There are three standard wells, what you would call oil wells.

Q. And by what companies were they put down?

A. One was put down by the Vishnu Oil Company and one by the Union and one by the Recruit.

Q. And what results did they obtain from those?

Mr. Mills—It is understood this objection goes to all this testimony?

Mr. Lewers—Yes.

A. The Vishnu obtained a well at about fifteen hundred feet. They have never tested it out to see what production they had. They have a light grade of oil and it is estimated somewhere along about a fifteen barrel well. The Union struck some gas but never got any oil. They didn't continue down more than about eight hundred feet. The Recruit Oil

Company went down fifteen hundred feet and abandoned the well—got no oil. By the way, there has been one other well in there that I have overlooked.

Q. What is that?

A. What they call the Humauma well. [2615]

Q. By what company was that sunk?

A. That was sunk by the Humauma Oil Company.

Q. Did they get any oil?

A. They got a slight showing. They got down about twenty-three hundred feet and I understand their money gave out.

Q. So that up to the time you left the field, in 1909, was the Carissa district regarded as an oil district?

A. Well, it was considered to have possibilities. That is about all you could say for it. Because, there had been no development that had proven anything.

Q. From your experience in the field do you regard oil sands of the kind you found in the Carissa district as a sure indication of the presence of oil in commercial quantities?

A. No; I would not say that.

Q. Do you know of any territory that contains showings of that kind that has not developed into an oil district?

A. Oh, yes; there are a great many places that contain the sand and seepages that have not shown up anything after being developed.

Q. Can you mention some of those places?

A. Well, the Rio Grande Company, as they called

it, or Rio Grande field, in San Luis Obispo county, and what is known as the Tar Spring Company in San Luis Obispo county.

Q. What is the nature of the showings there?

A. Well, they have seepages and oil sands.

Q. Have they any wells?

A. They have a few. Not in the localities I speak of, they have no producing well.

Q. Well, have they done any prospecting in the effort to obtain producing wells there?

A. Yes; they have drilled a considerable number of wells through there. Some of them seven or eight barrel wells. Not [2616] considered a paying investment.

Mr. Lewers—You may take the witness.

Mr. Mills—I will cross-examine the witness when I look over these documents.

Mr. Lewers—You might cross-examine him on the portion of his testimony which is entirely distinct from the other.

Mr. Mills—I cannot very well separate it, because I have made up my mind, in view of these documents, to cross-examine upon these all at the same time. And I will cross-examine you on Monday at 2 o'clock, Mr. White, if you will be here.

The Witness—All right.

Whereupon the further taking of testimony herein was adjourned until Monday, July 7, 1913, at 2 o'clock P.M., at the same place.

On Monday, July 7, 1913, at 2 o'clock P.M., by agreement and consent of counsel the further taking

of testimony herein was adjourned until Tuesday, July 8, 1913, at 10 o'clock A.M., at the same place.

On Tuesday, July 8, 1913, at 10 o'clock A.M., the further taking of testimony herein was resumed pursuant to the adjournment:

W. E. WHITE,

recalled,

CROSS-EXAMINATION

By Mr. Mills:

Q. Mr. White, when you referred to the daily drilling reports and telegrams and letters and other data in your custody in the Associated Oil Company, as chief clerk, which formed the basis of these summaries, Defendants' Exhibits 172, 173 and 174, you had in mind the documents which Mr. Lewers handed me in your [2617] direct examination?

A. Yes.

Q. Including the several packages of papers consisting of telegrams, and these envelopes containing the daily drilling reports, and the letters and other data?

A. Everything except these yellow slips. I don't have charge of those. These in the envelopes. Those are in our geological department.

Q. By Mr. Lewers—By "yellow slips" you mean pink slips?

A. Yes sir.

Q. By Mr. Mills—You refer to these as daily well reports, do you?

A. Daily log reports.

Q. Now, where did these come from?

A. Those are made out by the superintendent in the field.

Q. And who are they sent to?

A. They are sent to the geological department of the Associated Oil Company.

Q. Have you, since your direct examination on Thursday, conferred with Mr. Lewers?

A. Mr. Lewers and I have talked over the telephone—telling me not to come yesterday but to come this morning.

Q. Have you conferred in any other way with him?

A. No.

Q. These daily drilling reports, known as—or contained in an envelop marked “510”, are for what well?

A. Well No. 1 on Section 30, 30-24.

Q. And that consists of two packages?

A. Yes sir.

Q. Do you know anything about the custom of reporting these from the field, Mr. White?

A. The custom is to have what we call a tower report, that [2618] is, one report for each twelve hours, which is made out by the driller. He turns those in to the office and they make up one report covering the twenty-four hours.

Q. And that is mailed in to the company's office here?

A. That is mailed in to the company's office in San Francisco.

Q. You are satisfied that these are the original

receipts of the daily drilling reports upon the well No. 1 of Section 30 of 30-24?

A. Yes.

Q. Did you get these for transfer to Mr. Lewers, among the other papers?

A. Yes.

Q. Now, if you will take that first slip, first drilling report—is that the original of the drilling report?

A. This is the original, and then there is a copy kept at the Midway office.

Q. And the name “T. E. Barnes” at the bottom—is that his signature?

A. T. E. Barnes, our superintendent of drilling in the Elk Hills at that time.

Mr. Lewers—The question is, Is that his signature?

Q. By Mr. Mills—Do you recognize his signature?

A. I think not. At least, I don’t recognize it as his signature.

Q. It might have been signed by some one else?

A. Some clerk, probably.

Q. And that, for instance, appears to have an initial under this?

A. Yes sir.

Q. And is the same as the other. Who does the “O” stand for, under that name? [2619]

A. I couldn’t say. That is some clerk.

Q. Now, to be more specific, I call your attention to the daily drilling report for the 29th of July,

1910, upon well No. 1 in Section 30 in 30-24, in the Elk Hills, signed by T. E. Barnes, which states that the formation passed through was from "zero to 20 feet of the surface, started spudding 7 p. m. 7-28-1910", and ask you if that is one of the papers which you handed to Mr. Lewers as a basis of this offer.

A. Yes; this is one of the logs that I turned over to Mr. Lewers.

Mr. Mills—Now, have you any objection to—I don't want to ask that all of the matter that is in these daily reports go into the record. I would like only so much as shows the formation passed through, that is, the depth each day, the date and the remarks.

Mr. Lewers—That is, you mean all of that portion of the log slips that is really historical and not part of the blank?

Mr. Mills—Yes.

Mr. Lewers—I was going to make a suggestion in that connection, if you expect to make use of any part of this, which will facilitate and might shorten the entire proceeding—by merely having a copy made of those portions right straight through that we agree upon.

Mr. Mills—That is satisfactory to me. I have already asked the Examiner to prepare a copy, with a view of agreeing with you to use only so much of these slips as excludes the printed matter and unfilled blank.

Mr. Lewers—That is, use only the blanks that are filled, in other words?

Mr. Mills—Well, some of those need not be reduplicated. For instance, I don't think that has to be reduplicated, or the description, in any case which refers to—[2620]

Mr. Lewers—That is, just sufficient to identify the well.

Mr. Mills—Yes. That first one will identify that well.

Mr. Lewers—That is the idea that I had, in order to get sufficient of it to be intelligible without unduly encumbering the record.

Mr. Mills—Yes. Well, the, I think perhaps with that understanding I might read into the record, then, the daily drilling reports of well No. 1 of Section 30 of 30-24, and let it be understood that they are read with that limitation.

Mr. Lewers—There is no objection.

Mr. Mills—So that the Examiner may go on and copy that much of it into the record.

Mr. Lewers—Yes. In that connection, would you desire the names of the drillers to appear in all cases? _

Mr. Mills—I think that ought to appear, except where they are repeated from time to time, and it might show the same driller until a change takes place. For instance, here is the name of C. E. Stephenson and J. B. Simpson on the first report. If that appears on twenty-five subsequent to that, it is not necessary to carry that through but only to carry the name until there seems to be a change.

Mr. Lewers—My recollection of my examination

of those is that there appears to be a shifting, a variation, from time to time, and I cannot see where it is material.

Mr. Mills—It is not material. If the Examiner will take a list of the drillers, it will be sufficient for me—of all the drillers that appear in this—without repeating it in the copying.

Mr. Lewers—That will shorten it very much. With the understanding these records shall be returned to Mr. White as soon as the Examiner completes copying them.

Mr. Mills—Now, the same stipulation may be made—[2621]

Mr. Lewers—As to all the logs of the other wells.

Mr. Mills—Yes. Then let the same proceedings appear as to well No. 1 of Section 26, Mr. Examiner, and well No. 3 of Section 24, as to the original daily drilling reports.

(The drilling reports and other documents read in to the record while this witness was on the stand, are transcribed from the original record and bound with the volumes of exhibits and sent up as an original document without being printed.) [2622]

Q. By Mr. Mills—Referring to “Defendants’ Exhibit 173, which purports to be a tabulated statement of the operations and production on well No. 1 of Section 26, 30-23, the statement covers the time from March 10, 1911, until about August 20th, 1912. Is that correct?

A. That is correct.

Q. It is a fact, is it not, that there are no tele-

grams among those which you produced in support of this summary or tabulated statement which cover the period from March 10, 1911, to March 11, 1912?

A. That is to say, that there is no telegrams covering this period in here?

Q. There are no telegrams covering the period I mention. That is refering to well 26.

A. We must have them.

Q. Will you look? I hand you a bunch of telegrams, Mr. White, covering or purporting to cover the time from October 9, 1911, to March 11, 1912, and ask you if you can find anywhere in that bunch of telegrams any information as to the well on Section 26 included in your tabulated statement, "Defendants Exhibit 173?"

A. During the period mentioned the well was not drilling.

Q. Is that the way you state it? You say the well was flowing?

A. It was flowing; yes. But prior to that time, from the period from March 10 to September 11 there should be telegrams covering the operations on well 26, No. 1.

Q. How as to the other dates, from September 11 on?

A. From September 11 until about the middle of July, 1912, there were no telegraphic reports. I believe the telegraphic reports commenced about the middle of July, 1912, and continued until the well was shut down, in August, 1912. [2623]

Q. Now, then, what period of time, as to the his-

tory of well No. 1 in Section 26, 30-23, to which we have been referring, is not covered by telegrams?

A. I couldn't tell exactly unless I had the other telegrams here, but it was approximately from September, 1911, until—

Q. That is, the 1st day of September?

A. Well, approximately the 1st of September, 1911.

Q. Yes.

A. Until about the middle of July, 1912.

Q. Now, what do you mean when you say "the other telegrams"?

A. There evidently is a package of telegrams covering a period from March 10, 1911, up to about September 1st, 1911. You would have a period of from the middle of July, 1912, up to about the 20th of August, 1912.

Q. Those last telegrams, from July 17 to the middle of August, are here in court?

A. Well, then there must be still another package covering the period from March 1911, until September, 1911.

Q. Then, what you mean to say, Mr. White, is that the period up until September 1st, 1911, covering the history of well No. 1 in Section 26 as set out in your summary, was drawn from telegrams which you did not bring into court

A. It is my recollection that was taken from telegrams or the confirming daily written reports.

Mr. Lewers—Which are here in court, Mr. Mills.

Mr. Mills—Now, I object to any interruption of

the examination, Mr. Lewers.

Mr. Lewers—And have been in your possession or under your examination for four days.

Mr. Mills—That statement is untrue, as counsel well knows.

Mr. Lewers—I think your statement is very remarkable.

Q. By Mr. Mills—Now, why didn't you bring in those tele-[2624] grams, Mr. White?

A. Well, we thought we had all that was necessary.

Q. You have endorsed, though, on the Exhibit No. 173, which constitutes counsel's offer as to well 1 of Section 26, information which was contained in those telegrams, have you not?

A. Well, I couldn't state positively now whether this was taken from the telegraphic reports or the daily written reports which you have here. My recollection is, though, that there were telegrams covering that period of time.

Q. And those telegrams you have not here in court?

A. Apparently not.

Q. Mr. White, in this series of letters, signed by Mr. L. J. King, addressed to Mr. Bell, field manager, beginning at March 10, 1910, and running to September 1, 1911, are references to this particular well that we have been discussing. Do these purport to contain some of the information which was on the telegrams you refer to?

A. They contain it, only in some cases it is a little more lengthy.

Q. Which is more lengthy?

A. A little more detail in the written report.

Q. Are you positive that there are not some differences between this written report and the telegrams?

A. There is no other difference except that there may be a little more details in the log or written report,

Q. Now, isn't it true that as a matter of custom the letters—These are the confirmatory letters, are they not, which you referred to?

A. Yes.

Q. That the letters contained, in most instances, the exact statement found in the daily drilling report? [2625]

A. They are supposed to and should contain the same information.

Q. Now, I call your attention to a letter dated March 10, 1911, addressed to Mr. Bell, field manager, and signed by L. J. King, among the papers handed to me by Mr. Lewers on Thursday last. Do you know Mr. King's signature?

A. Yes.

Q. Do you know whether that is his signature, or was it signed by some clerk?

A. I think not. I think that was signed by his chief clerk, Williams.

Q. In this letter appears this statement: "Elk Hills—Section 26, No. 1. 3548 feet; 3168 feet of 41½

inch casing; formation 3548, blue shale. Getting ready to make test." That refers, does it not, to this well we have been talking about?

A. It refers to 26, No. 1.

Q. And the well which we have been discussing?

A. Yes.

Q. Now, is it possible that you used any of these letters from March 10, 1911, to September 1, 1911, as forming a basis of your tabulated statement known as Defendants' Exhibit 173?

A. Yes; it is very likely, because some of the telegrams are missing.

Mr. Mills—Let the same method be pursued, then, as to this, Mr. Lewers?

Mr. Lewers—That is agreeable.

Mr. Mills—In respect of introducing so much of each one of these letters into the record as bears on Section 26 well, as if read into the record?

Mr. Lewers—Yes.

Mr. Mills—And I suppose it may be further stipulated [2626] that the excerpts taken from these papers as read into the record will have the same force and effect as if the originals were produced and read to the court?

Mr. Lewers—That is agreed.

Q. By Mr. Mills—Again referring to Exhibit 173, which constitutes the tender of counsel for defendants on Thursday last, is there anything which was brought into court purporting to support the accuracy of this offer which covers any of the period from September 1st, 1911, until July 17, 1912, relat-

ing to the history of the operations of well No. 1 on Section 26?

Mr. Lewers—That is what you have just introduced in evidence.

Mr. Mills—No; that does not cover it, Mr. Lewers.

Mr. Lewers—It certainly covers part of the period, don't it?

Mr. Mills—No. It carries it from the last date of what I introduced to the first date of the next set of telegrams.

Mr. Lewers—Oh, you are coming at the telegrams now.

Mr. Mills—No; I am coming at a period that is not covered by anything, so far as I can discover.

A. My recollection is that during the period referred to—

Q. Just a minute. The question is whether there was anything which you brought into court in support of that document which covers that period that I mention.

A. What is that period, again?

Q. September 1, 1911, to July 17, 1912.

A. During that period I believe there was no report.

Q. That is not an answer to the question, Mr. White. It is not responsive. I ask you if you brought anything into court in the way of data, drilling reports, or telegrams or letters, which in any way covered that period that I have [2627] mentioned, from September 1, 1911, to July 17, 1912, relating to the well No. 1 on Section 26.

Mr. Lewers—If you will look at that list just introduced in evidence, Mr. Mills, I think you will find something.

Mr. Mills—I didn't introduce the list.

Mr. Lewers—You didn't call attention to that. You have a right to examine those files carefully, Mr. White, before you answer those questions. There is a lot of stuff in there after September 1st.

Mr. Mills—I will withdraw that question, Mr. Examiner, and ask this question:

Q. Mr. White, have you brought anything into court in the way of letters and telegrams or daily drilling reports or other data which you examined for the purpose of making defendants' offer 173, covering the period from October, 1911, to July 17, 1912, inclusive?

A. To the best of my knowledge, we have nothing. We have brought nothing into court covering that period, as the well was shut down.

Q. You say the well was shut down. Does not the summary or tabulated statement which you produced show, on the contrary, that the well was flowing during the entire time of the period I have mentioned?

A. It was flowing a small quantity of oil during that period.

Mr. Mills—I move that that answer be stricken, as not responsive,

Mr. Lewers—Well, I submit it is responsive.

Q. By Mr. Mills—I didn't ask you how much oil it was flowing, Mr. White. My question is, and I

ask it again, whether, on the contrary, your tabulated statement, which constitutes the defendants' offer 173, shows that well No. 1 of Section [2628] 26 flowed during the entire time of the period I have mentioned.

A. It did flow.

Q. That is not the question. Doesn't your tabulated statement show that?

A. Yes.

Q. Now, have you brought any data into court in support of the accuracy of this exhibit we have referred to, which in any way shows the production, month by month, during the period I have mentioned, from October, 1911, to July 17, 1912?

A. We have production reports.

Q. I ask you if you brought them into court. Just read the question. (Last question read by Special Examiner.)

A. We have.

Q. Where is that data? I am referring, now, to data which is offered in support of the accuracy of this exhibit which on Thursday was submitted to me for examination.

Mr. Lewers—That was already introduced in evidence, Mr. Mills, that other data. He has answered the question. It was brought into court and introduced in evidence.

A. We brought that data. I don't know whether it was submitted or not.

Q. By Mr. Mills—Well, what did it consist of?

A. Letters to the auditor.

Q. Covering well No. 1 of Section 26?

A. Yes.

Mr. Mills—Have those been introduced in evidence?

Mr. Lewers—Yes; they were introduced in Mr. Williams' testimony, Mr. Mills.

Mr. Mills—May I see them Mr. Examiner? (Letters handed to counsel for the government.) That appears to cover it, Mr. Lewers. [2629]

Q. Mr. White, I call your attention to a telegram dated January 23, 1912, addressed to F. B. Henderson, A.F.L. Bell, San Francisco, reporting up to midnight of January 22, 1912, and signed L. J. King, in which there is a reference to well No. 1 of Section 30. Will you read that portion of the telegram which refers to the Elk Hills?

A. "Elk Hills. Well Section 30, No. 1. Placed on pump at 2360 feet; started 9 A. M. Pumped water three hours. Turned to oil. Showed production at rate of 350 barrels for eighteen hours. Cut 9 per cent B.S. No water."

Q. Now, I notice that on defendants' offer No. 172 for that date, in your tabulated statement of production—you may read what your tabulated statement gives as to that particular date.

A. "350 rate. 9 per cent B.S."

Q. Now, when you say "rate", you mean the amount of oil that the well will produce in twenty-four hours, don't you?

A. That is it.

Q. So that the statement on the summary is erro-

neous in placing the rate at 350 barrels when in fact the well actually produced 350 barrels for eighteen hours. Is not that correct?

Mr. Lewers—I object to the question, on the ground that the question does not fairly state the report of the telegram, as the word “rate” is used in the telegram and the transcription is a fair one.

Mr. Mills—You may answer.

A. That was copied from the telegram and the word “rate” used in the same sense.

Q. Now, Mr. White, what would be the actual rate per day of twenty-four hours on a well which will produce 350 barrels in eighteen hours?

Mr. Lewers—I object, on the ground that there is no [2630] evidence that the well produced 350 barrels in any number of hours. It is merely the report of the telegram that it produced at the rate of 350 barrels.

Q. By Mr. Mills—It would be 466 $\frac{2}{3}$ barrels, wouldn't it?

A. Yes. But you must understand that that is estimated. It is all guesswork anyway, because they had no way of saving the oil and they simply estimated it at 350 barrels at the time it was operated.

Q. Were you there to see they had no way of saving the oil, when that well was operated on January 22nd, 1912?

A. No.

Q. That forms the basis of that telegram?

A. No; but I know the conditions at the well at the time.

Q. You knew it from hearsay only, didn't you?

A. Well, from our records and office routine.

Q. Yes, from hearsay; that is what I mean. That is correct, isn't it?

Mr. Lewers—That is not hearsay, and it is not fair to ask the witness whether it is or not. Records of an office are not hearsay, in the regular course of business.

Q. By Mr. Mills—Now, Mr. White, a fair interpretation of your tabulated statement would indicate that you intended the court to understand that under the entry for this particular date of well No. 1 of Section 30, that the well was producing each twenty-four hours 350 barrels with 9 per cent B. S.?

A. "Each twenty-four hours"? I don't get that. Because there was only eighteen hours that it did produce.

Q. Is there anything on your tabulated statement to show that it pumped only eighteen hours? You may look at the statement.

A. No, there is nothing on the statement to show that. [2631]

Q. You intended to have the court understand, when you made that statement, that the well was producing at the rate of 350 barrels a day, did you not?

A. I meant that the well produced during that day 350 barrels, or at the rate of 350 barrels during that day.

Q. Yes. That is at the rate of what? 350 barrels for what time?

A. That was the total production for the day.

Q. Well, now, you have, on this same sheet, put down the total production for the day at various places, have you not, without putting the word "rate" after the amount of the production?

A. Yes. This statement was supposed to eliminate some of the unimportant details.

Q. It becomes quite important, doesn't it, to inform the court, when you are trying to show the monthly production or daily production of a well, to show that it would produce at the rate of 466 barrels, if that is the fact, rather than to indicate that it would produce only 350 barrels?

A. Well, practically there is no way of telling whether a well is doing 350 or 400 barrels a day. It is simply an estimate.

Q. When you put down "350 barrels", it was your intention to have the court understand that that well produced at the rate of 350 barrels a day, when you put the word "rate" after 350.? Now is not that true?

A. Well, it may be a little misleading, the way it is put down here; but my intention was to convey the idea that during that day we secured 350 barrels of oil from the well.

Q. What was your intention in the item opposite January 24, on the same well? Was that also to show what was actually produced? [2632]

Mr. Lewers—You have a right to look at the telegram.

Mr. Mills—I am referring now to the summary itself.

Mr. Lewers—But he has a right to look at the telegram upon which the summary was based.

Mr. Mills—Well, this question does not call for the examination of the telegram. I am asking him what that meant on the paper itself.

Mr. Lewers—I instruct you, Mr. White, you are not required to answer that unless counsel permits you to examine the telegram for that date upon which you have testified the entry was made.

Q. By Mr. Mills—Now, I understand you to say that it was your intention, as to the entry on January 22, where you say, “350 (rate)”, to show that that well actually produced, during all the day that it was pumping or operated, 350 barrels. Is that correct?

A. Yes.

Q. Now, it was also your intention, was it not, in the item of January 26, to show the same thing as to the 400 barrels?

Mr. Lewers—There is the same question again. Will you permit Mr. White to examine that telegram? He is not testifying from his own knowledge, made on the ground, an observation of a well, but has testified that this is a chart that he has made from the telegrams and other records and the chart purports to faithfully represent, as nearly as may be, the results of those telegrams. Now, you ask

him what he meant. He has already testified that he meant to put down what the telegrams and reports showed. You will not permit him to see the telegrams, and I think the question is unfair.

Mr. Mills—I cite your constant interruptions as misconduct. [2633]

Mr. Lewers—I will very cheerfully plead guilty to that sort of misconduct; but I would not to yours.

Mr. Mills—Read the question, Mr. Examiner.

Mr. Lewers—I instruct you you are entitled to examine that telegram.

(Question read by Special Examiner.)

Mr. Lewers—Let the record show that counsel refuses to permit the witness to examine the telegram.

Q. By Mr. Mills—Can't you tell that without referring to the telegram? I am referring now simply to your own tabulated statement.

A. Well, in making up the statement I simply endeavored to follow the wording of the telegram and not to put down my own conclusions entirely.

Q. Well, take this question, then: When you put down so many barrels, with the word "rate" after it in one case, and so many barrels in another case without the word "rate", is there any distinction to be drawn from that by the court?

A. Well, wherever the word "rate" was mentioned in the telegrams from which I made this statement up, I included it; where it was not given I left it blank.

Q. Now, do you want the court to understand

that that is true in every instance, Mr. White? Aren't there numerous instances in these tabulated statements where you haven't followed that plan?

A. Well, in some of the reports the word "rate" itself will not be shown, but from the report itself it could be seen that the well was not operating the twenty-four hours, not pumping, for instance, or being operated, the twenty-four hours.

Q. Well, I am speaking generally, now, of the whole statement—wherever you have used the word "rate" after the num- [2634] ber of barrels, is there any distinction to be drawn, or did you intend any distinction to be made on the part of the court, from a case where you simply put down the number of barrels without the word "rate"?

A. Yes.

Q. What distinction did you desire the court to have in mind?

A. Well, speaking generally, in the well that would flow at 350 barrel rate, you would have produced 350 barrels.

Q. Yes; and when you say "rate" what time is covered?

A. Twenty-four hours.

Q. Twenty-four hours. So that you intended the court to understand that when you used the word "rate" in any instance, it meant that whatever length of time it pumped for that day, if pumped twenty-four hours at that rate it would produce that number of barrels in that time?

A. Yes; that is my idea.

Q. So that, in this particular instance on the 23rd of January, where, as you read in that telegram, the well produced at the rate of 350 barrels for eighteen hours, the way you have placed it upon the summary is misleading, is it not?

Mr. Lewers—I think your question is misleading. The telegram does not state that that was the fact.

Mr. Mills—I have quoted the telegram exactly.

Q. Why don't you answer, Mr. White?

A. Well, on a statement of this size you could not put all the details.

Q. I understand that; but the question is whether or not it is not misleading, the way you have it, without putting in the words "eighteen hours."

A. It may be a trifle dense, but as the estimate of pro- [2635] duction is simply an estimate it really does not make much difference.

Q. Well, Mr. White, the question is whether it is not misleading.

Mr. Lewers—I submit that has been answered—answered twice.

Q. By Mr. Mills—Why don't you answer?

A. It may be a little misleading.

Q. "A little bit misleading". Isn't it misleading to the extent of 116 barrels on twenty-four hours?

Mr. Lewers—That question has been answered several times.

A. Strictly speaking, I presume it would be misleading to that extent.

Q. By Mr. Mills—Now, according to your tabulated statement, Mr. White, 172, that we are now ex-

aming, what was the initial production—350 barrels or 466 barrels—of that well?

A. Well, the initial production was 350 barrels in twenty-four hours.

Q. According to the statement?

A. Yes. Speaking of initial production, however, Mr. Mills, there was a slight production prior to that; so it wouldn't be initial production.

Q. Well, this 350 barrels, then, was after the initial production had—

A. Yes.

Q. That is, it had grown up to that, you mean?

A. Yes.

Q. Now, I call your attention to a telegram dated January 25, Mr. White, addressed to the same parties as the last telegram, signed by the same sender. Will you kindly read that [2636] portion of it which refers to this well that we are discussing?

A. "Elk Hills—Section 30, No. 1. Pumping 400 barrels actual gauge at 2360 feet, gravity 24.5; cut 2.1 water, 6 per cent B. S."

Q. Now, is there anything on your tabulated statement to show that that well was put on the actual gauge on that date? Is there anything on your tabulated statement to show that the well ran 400 barrels actual gauge?

A. What is the date?

Mr. Lewers—January 25th.

Mr. Mills—No; up to this night of January 24th.

A. The statement shows production of 400 barrels during the twenty-four hours of that date.

Q. I read from telegram dated January 29, reporting up to midnight of January 28th, as to this well: "Elk Hills—30. Pulled tubing. Put on new pump. Lowered well to 2600 feet. On at midnight." There was a difference of 240 feet in the position of that pump from January 22nd, was there not?

A. I don't get that question, Mr. Mills.

Q. On January 22 the pump was at 2360 feet, according to the information from which you based that summary, and on January 28th, according to the telegram, up to the 29th, the pump was lowered 2600 feet, which would make a difference of 240 feet, would it not?

A. Yes.

Q. Now, what happened in the production as soon as that pump was lowered 240 feet? And I refer you to the information contained in that telegram of January 30, reporting to midnight of January 29th, 1912.

A. With reference to the telegram indicated, dated January 28, 1912, you will note that the well, the fluid level in that well, was lowered to 2600 feet, and not the pump. Under date of [2637] telegram of January 30, reporting up to midnight of January 29, 1912, the pump was put down to 2600 feet.

Q. And what happened to the production?

A. The production had been falling off, possibly due to the head being pumped off the well.

Mr. Mills—I move that the latter part of the answer be stricken, as mere speculation on the part of the witness, and not responsive.

Mr. Lewers—I insist that the answer stand.

Q. By Mr. Mills—Now, what production, after the pump was put on at 2600 feet, did the well give?

A. It pumped at the rate of 212 barrels.

Q. And on January 30 the production went down still further, did it not, that is, on the next day, as you have it in your statement?

A. Yes.

Q. Down to ninety barrels?

A. Yes.

Q. Is that correct?

A. That is correct.

Q. And on the following day pumped only a hundred barrels. Is that correct?

A. That is correct.

Q. What is the total production which your tabulated statement gives for January, 1912, on well 1 of Section 30?

A. 687 barrels.

Q. Now, I show you a telegram dated January 23, 1912, reporting up to midnight of January 22. What amount of oil, according to that telegram, was pumped from the well we are talking about?

A. Pumped at the rate of 350 barrels for eighteen hours.

Q. How much oil would that be? Three hundred and fifty [2638] barrels, wouldn't it?

A. No, it would be less than that.

Q. How much would it be?

A. It would be approximately 270 barrels, as I interpret it.

Q. Now, I refer you to telegram of January 24, 1912, reporting for the 23rd. What amount of oil, according to that telegram was produced from this well on that day?

A. It is hard to tell from that whether it is producing twenty-four hours or not. It is producing at the rate of 350 barrels in twenty-four hours. Whether it pumped twenty-four hours or not you can't tell.

Q. There is nothing to show that it didn't pump for the full twenty-four hours, is there?

A. No.

Q. And on the preceding telegram there is something to show that it pumped less than twenty-four hours?

A. Yes.

Q. So that it is a fair assumption to say that it pumped twenty-four hours, is it not?

Mr. Lewers—I submit that is purely argumentative. It is not a fair assumption, either.

A. Well, it was producing at that rate, Mr. Mills. It is guesswork.

Q. By Mr. Mills—Well, what did you put down for the 23rd?

A. I put down 350 barrel rate.

Q. Well, how did you arrive at your total monthly production?

A. That is taken from the statements sent in by the superintendent to the auditor, which has already been introduced as evidence. [2639]

Q. What statement was that?

A. The letters to the auditor.

Q. You are referring to your well on Section 26, aren't you?

A. They are all—

Mr. Lewers—They are recited with reference to each well, Mr. Mills.

Q. By Mr. Mills—Then you paid no attention to the telegrams at all?

A. Not in securing the total production, as they do not give it.

Q. Have you anything there for January 27th, in the way of production?

A. No production.

Q. Now, I call your attention to telegram of date January 29th, reporting for midnight of January 27th, "Elk Hills—30-1, pumping 400 barrels at 2300 feet, gravity 25". Have you anything to show that it was pumped on that date on your tabulated statement?

A. On the 29th?

Q. On the 27th.

A. I show here that the well had trouble on that date.

Q. Well, the question is not what you showed affirmatively, but is there anything on that tabulated statement to show that the well produced any oil on that day?

A. No. I considered the fact that the well had trouble on that day more important than the production.

Q. Then you disregarded the telegram, which stated that for that day, "Well No. 1 on Section 30

was pumping 400 barrels at 2300 feet, gravity 25''? Now, you state you regarded the "trouble" as more important that day. Is that right?

A. I will have to look at the original telegram, Mr. Mills, [2640] before I answer.

Q. Will you read the question, Mr. Examiner? (Question read by Special Examiner.) Let the record show that the witness does not answer for several minutes.

Mr. Lewers—Well, let the record show that the witness is examining the telegrams, which counsel has refrained from letting him see before.

Mr. Mills—It does not require any telegram to answer that question, whether he regarded the trouble as more important or not.

Q. Can't you answer the question without reference to the telegram, namely, whether you regarded the trouble which may have occurred on this day as more important than the production?

Mr. McCormick—I think he answered that.

Q. By Mr. Mills—Did you testify to that, Mr. White?

A. I believe I did.

Q. Now, wasn't it your purpose, in making this tabulated statement, and were there not instructions issued to you, to show the actual monthly production of these various wells?

A. Actual monthly production?

Q. Yes. Was not that the purpose?

A. I have shown the actual monthly production.

Q. Won't you answer my question? Wasn't that

the purpose? Not what you did, but what was the purpose?

A. The purpose was to show the actual monthly production.

Q. It was not to show the "trouble", was it?

A. The purpose of the entire statement was to show the history of the operations on that well.

Q. Why were you so particularly interested in showing the great trouble which occurred on a certain day, and for that reason failed to put down on that day the production of the well, [2641] when you say it was your purpose to show the production?

A. Not entirely. It was my purpose to show the history of the operations of drilling, and the work on the well, as well as the production.

Mr. McCormick—I don't think he answered your last question.

Mr. Lewers—I submit he has answered it several times.

Mr. Mills—Read the question and answer, please. (Last question and answer read by Special Examiner.)

Q. As I understand you, then, Mr. White, the figures which you call actual monthly production you didn't take from the telegraphic reports from the field but took from figures submitted to you by some one else, in a different way?

A. Took the production from the regular monthly reports submitted from the superintendent from the field.

Q. And you disregarded these telegrams entirely?

A. Disregarded the production shown on the telegrams, any more than as a matter of information.

Q. So that, in any place where the telegram shows an actual production of in excess of what you state in your total, that is, where the telegrams of that month will show more than that, that was due to the fact that you didn't consult the telegrams for the monthly production but took the monthly report? Is that correct?

A. Let me understand you. You mean by adding up the total production that is shown here daily it would amount to more than the total for the month? Is that it?

Q. No. What I mean to say is that the total which you give for each and every month, where it differs from the total as shown by the telegrams would be due to the fact you didn't consult the telegrams but consulted some other medium of information?

A. I have shown on here daily— [2642]

Q. Just answer that. I didn't ask you what you have shown.

Mr. Lewers—I object to the interruption of the answer as the witness starts. You have a right to answer in your own way, Mr. White, and explain your answer as you desire, without interruption from counsel, too.

(Last question read by Special Examiner.)

A. That question is a little dense to me; but I have shown on the statement—

Q. By Mr. Mills—Now, I didn't ask you what you have shown, and I will reframe the question, if you want me to.

Mr. Lewers—I object to the interruption. Permit the witness to answer the question. Every time you see an answer coming you don't like—you indulge in some interruption trying to disconcert the witness. I desire to enter a formal protest against that method of examination.

Q. By Mr. Mills—Mr. White, what I mean to say is this: Wherever the total monthly production as given on the foot of your tabulated statement would differ from the total monthly production as shown by the telegrams, that discrepancy would be due, as I understand you, to the fact that you didn't consult the telegrams to get the production, but consulted some other medium of information? Is that correct?

Mr. Lewers—We object to that, on the ground the telegrams don't show total monthly production. The question is misleading, assumes a fact in evidence which is not in evidence. There is no total monthly production shown on the telegrams.

Q. By Mr. Mills—Where it shows it day by day and the total of those days shows actual production up to a certain amount, and that should differ from the total you show, would it be due to the fact that you consulted some other medium than the telegrams in making up your totals for the month? [2643]

A. Yes. In securing these totals, I have taken the totals for each month from the official statement sent in by the superintendent, which are now in evidence.

Q. And you paid no attention to the telegrams in respect to the totals?

A. You could not secure the information from the telegrams, and I disregarded it.

Q. Now, will you answer the question? You paid no attention, did you, to the telegrams in putting in your totals?

Mr. Lewers—I submit he has answered it. He said he disregarded them. He could not get the information from them. If you would listen to the answer before you interrupt him with another question, you would understand it.

Q. By Mr. Mills—Now, can't you answer that question by Yes or No?

A. There was no attention paid to the telegrams in compiling or in setting down the monthly totals shown for each month.

Mr. Mills—Yes.

Whereupon the further taking of testimony herein was adjourned until Tuesday, July 8, 1913, at 2 o'clock P. M., at the same place.

On Tuesday, July 8, 1913, at 2 o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment:

W. E. WHITE

recalled,

CROSS-EXAMINATION

resumed [2644]

By Mr. Mills:

Q. Why did you think it was necessary, Mr. White, in answer to those last questions, to look at the telegrams in order to interpret these summaries which you have brought in?

A. Well, Mr. Mills, that schedule there was made up some time back and these things are not very fresh in my memory at the present time.

Q. Did you expect the court in this case to be able to interpret this blueprint exhibit which we have been talking about without the aid of the telegrams, when you who were the constructor of it could not interpret its meaning without the aid of the telegrams?

Mr. Lewers—To which I object, on the ground that it is irrelevant what he expected the court to interpret. That is for the court to determine and not for the witness.

A. At the time I made up that schedule I didn't know that it was to be brought into court.

Q. Oh, you didn't understand that this was to be used as an exhibit in court?

A. No; not particularly.

Q. What did you think it was to be used for?

A. I made it up as a summary of the development and production of the wells.

Q. I ask you, what did you expect it to be used as or used for?

A. Well, I didn't know what purpose it would be used for.

Q. Who told you to make it up?

A. I made it up of my own accord.

Q. That is, no one suggested it to you at all? You thought it a desirable thing to make that so that you might have it for future reference, or something of that sort? Is that what you mean? [2645]

A. I thought it was more desirable than to introduce all our telegrams and other office records.

Q. Introduce them where?

A. In any proceedings that might take place.

Q. In any future proceedings?

A. Any future proceedings, at that time.

Q. What kind of proceedings?

A. Any court proceedings.

Q. Possibly any court proceedings affecting the title to these lands, in the United States courts, you mean?

A. No. I will explain the reason for making up the report. One of Mr. Lewers' representatives called at the office and wanted some data.

Q. What was his name?

A. Mr. E. G. Jeffress. And instead of giving him all our office records, I thought it would be advisable to give him a summary of the office records.

Q. Did Mr. Jeffress tell you at that time that there was a case in which the United States was seeking to recover certain lands in the Elk Hills, and that one of the questions involved was the mineral character of the lands?

A. Well, he did not state it in those exact words, but I knew that from other sources.

Q. Then you knew that this information was desired for the purpose of supporting the contention that certain lands adjoining the lands affected by this summary were not mineral in character?

A. Yes; I understood that.

Q. And with that in mind you constructed these three charts which are known as Defendants' Exhibits 172, 173 and 174?

A. Yes.

Q. Now, suppose it had been the contention, and you under- [2646] stood it to be so, of the railroad company, to show that these lands were mineral, instead of non-mineral, that is, that they were applying under a mineral law for the lands and agricultural adverse interests had interposed; would you then, in that case, have swelled the rate instead of minimizing the amount of actual production, as you did in one case on this chart?

A. I don't think I have swelled the rate.

Q. I know you haven't; but I say, would you then have swelled the rate or the production, instead of minimizing it, as you confess to have done in one chart here?

A. I have put down the facts, to the best of my ability, as I found them from our office records, neither increasing nor decreasing them.

Q. What control has Mr. Lewers over the affairs of the office over which you preside?

A. None that I know of.

Q. Did you know Mr. Lewers before Mr. Jeffress came there?

A. I knew of him.

Q. And what did you know of him? That is, what did you know about his connection with the railroad company?

A. I simply knew that he was the attorney in the case involved.

Q. You knew that he was the attorney in the case which the government had brought to recover certain lands in the Elk Hills?

A. Yes.

Q. Now, why did you think it was necessary to furnish to Mr. Jeffress this information from the private files of your company? Who authorized you to do that?

A. Mr. Jeffress told me that he had authority to secure that information, and I accepted his word for it. [2647]

Q. What officer of the Associated Oil Company authorized you to give up private information regarding the production and history of wells which they claimed to own in the Elk Hills?

A. Mr. F. B. Henderson, assistant general manager.

Q. And in what form did those instructions come to you?

A. I called him on the phone and asked him if it was all right to give that information, and he said yes.

Q. Did you explain to him that a representative

of the railroad company's law department was there seeking information about the wells in the Elk Hills of the Associated Oil Company?

A. I told him who desired the information, and he understood, apparently.

Q. You understood at that time, did you not, as a man abreast of the affairs in your company, that the Southern Pacific Company owned a majority of the capital stock of the Associated Oil Company?

A. I don't know as to that of my own knowledge.

Q. Well, you knew of that by rumor and by hearsay among officers of the company, did you not?

A. From hearsay evidence; yes.

Q. And, that is, you had heard it discussed by your associates in the Associated Oil Company, and knew that the Southern Pacific—

A. That was my understanding, Mr. Mills.

Q. Yes. So that, in furnishing this information, you were really doing it for the parent company of the Associated Oil Company?

A. Well, this particular schedule involved was my own idea. Instead of having them take all our records, and so on, I thought it would be a better idea to have a concise history of the development of our own wells.

Q. Now, will you read the question? (Question read by [2648] Special Examiner.)

Mr. Lewers—I submit that has been answered.

A. I was doing it in accordance with the routine of our own business.

Q. By Mr. Mills—That is, it would be a matter

of routine, if the Southern Pacific Company would ask for information from the Associated Oil Company—you would not regard it as strange, would you?

A. That is not the point. I was instructed by my superiors to give the information, and I did it. I don't know where the authority came from, or anything else about it.

Q. Now, at this morning's session I think we reached a telegram dated January 25, reporting up to midnight of January 24, upon well No. 1 of 30-24.

Mr. Lewers—No; you got three days later than that, Mr. Mills.

Q. By Mr. Mills—Well, now, will you refer to the telegram, please, in which this statement appears: "Elk Hills—Section 30, No. 1, pumping 400 barrels actual gauge at 2360 feet, gravity 24.5"? On that day, namely the 24th day of January, the telegram which I have referred to showed that there had been an actual production of 400 barrels, did it not?

A. Yes sir.

Q. Now, in a telegram dated the 30th day of January, reporting for the 29th to midnight, appears this statement: "Elk Hills—30-1, pumping at 2600 feet, production at rate of 212 barrels." That represents, according to your understanding, does it not, that at midnight of January 29th the superintendent reported that as to that well it had been pumping at the rate of 212 barrels during the day of January 29?

A. Yes. [2649]

Q. Now, then, you made an error, did you not, in

your summary or tabulation, by placing that on the 28th day of January, 1912.

A. May I see those figures? (Figures shown to witness.) It looks as though we have it just one day in advance of the actual date.

Q. It is clearly an error, isn't it, after refreshing your memory about it?

A. It is clearly an error, inadvertently made. That is, we have taken the date of the telegram instead of the date of the day of production.

Q. On the 31st day of January appears a telegram, addressed to the same parties, F. B. Henderson and A. F. L. Bell, signed by King, reporting for January 30, 1912, up to midnight, in which this sentence occurs: "Elk Hills—Section 30 No. 1, pumping 90 barrels at 2600 feet, gravity 25." You understand that to be a report of the 30th day of January, up to midnight of that day, do you not, and that the well had been pumping that day, up to midnight, and had reported at 90 barrels?

A. That was on the 29th?

Q. On the 30th; reported up to midnight of the 30th.

A. (After examining telegrams.) My record here shows a hundred barrels. It is evident that we have taken the date of the telegram instead of the date of the day that the telegram purports to report on.

Q. In other words, you have made an error in the tabulated sheet, known as Defendants' Exhibit 172, of one day, and got it on the wrong space.

A. Wrong line. It looks as though we had taken the date of the telegram instead of the date of the day it was reported on. [2650]

Q. Yes. Now, you may answer the question, after having explained the error in your sheet. Read the question. (Question beginning at line 13 of the preceding page read by Special Examiner.)

A. It is evident that we have taken the date of the telegram instead of the date of the day.

Q. Yes; you explained that. Eliminating that explanation, now, assuming that you have placed it on the correct space in your sheet—

A. Yes.

Q. —will you answer the question, whether you understood from that telegram that it reported the day's operations up to midnight of that day and that that well did ninety barrels?

A. I don't quite understand your question yet.

Q. Why can't you answer it?

A. I don't quite grasp the question. Do you mean to ask if I—

Q. I will ask you again, if you don't understand it, and try and put it in a different form. In the telegram to which I called your attention, did you understand that that constituted a report, in so far as it related to this particular well, of the doings of that well up to midnight of the day before, namely, January 30th?

A. Yes; I did.

Q. That is, that the well did 90 barrels?

A. Yes.

Q. And you placed it down for the 29th?

A. Instead of the 30th.

Q. Is that correct?

A. That is correct.

Q. So that the only error you see is in placing it on the 29th instead of for the 30th? [2651]

A. That is all.

Q. Now, in a telegram dated February 1st, and reporting up to midnight of January 31st, addressed to the same parties and signed by Mr. King, the superintendent, appears this sentence: "Elk Hills—Section 30, No. 1. Pumping 100 barrels at 2600 feet, gravity 25." Did you understand that in the same way as you did the telegram preceding, that it was a report of the well's doings up to midnight of the date previous, namely January 31st?

A. Yes.

Q. You, however, have made an error, have you not, in your tabulation, by placing the production for that date on the day preceding.

A. It is evident that I have; yes.

Mr. Lewers—Right in that connection there is some confusion, Mr. Mills. I think Mr. White stated that that was through inadvertently using the date of the telegram. That could not possibly be the explanation, because it is a day ahead instead of a day behind.

Q. By Mr. Mills—So that, Mr. White, according to the actual statements you have now made, which are supported by these telegrams, there was production for the month of January, 1912, a net production

of 1771 barrels of oil, whereas you, in your total for the same month, have only credited that well with 687 barrels? Is not that true?

A. I can't see how you figure the 1771 barrels, Mr. Mills. The statement does not show anything of that kind.

Q. Can you figure in any manner, from your own tabulation, which apparently carries this day by day, but which in fact, as you have stated this morning, does not make the total for the month of January, 1912, agree with the actual production which you yourself have placed on the tabulation, eliminating [2652] the word "rate" wherever it occurs?

A. There is no way of totaling up the daily production as shown for the month of January, because in a great many cases it is a "rate" of so many barrels a day.

Q. Well, I was eliminating where it says a "rate" of so many barrels a day, upon your actual tabulation; and taking those which appear to be clear, without the word "rate," can you possibly make the total of those figures, the actual total, agree with the total which you have placed there?

A. The total which I have here is the amount of oil sold.

Q. Well, can't you answer that Yes or No?

A. There is no way of adding "rates."

Q. I have eliminated the "rates" in my statement.

A. We have no data at all to show us the daily production.

Q. I ask you whether you can take the figures in the month of January, as you have placed them on there, where the word "rate" does not occur, add them up, and make the sum total agree with the total which you have placed at the foot of that column.

Mr. Lewers—I object to the question, on the ground that the witness has already testified that that is not production in all cases, but an indication of the rate while the gauge is being taken or an estimate made—just the same as if you would say a train runs 60 miles an hour it does not mean it runs an hour at all.

Mr. Mills—Read the question. (Question read by Special Examiner.)

Q. Now, can't you answer that question Yes or No?

A. I have simply taken the figures as I have found them.

Q. I have asked you another question. Can't you answer that by Yes or No?

Mr. Lewers—He is not required to answer Yes or No at [2653] the behest of counsel. You may answer it in your own way, Mr. White, to express your statements and not his.

Q. By Mr. Mills—Now, I ask you again, Mr. White, and I request you most respectfully, if you can do so, to answer it by Yes or No, whether you can make the figures which you have placed in the column for January, 1912, upon this sheet, for the well on Section 30, agree in its total with the total which you have placed at the foot of that column?

A. I could not answer that by Yes or No very intelligently, Mr. Mills.

Q. Can you make it agree, do you think?

A. The production shown at the foot of the column is our official production for the month.

Q. Well, didn't you explain that this morning?

A. Explain what?

Mr. Lewers—Explained it repeatedly.

Q. By Mr. Mills—You explained what that was this morning, didn't you?

Mr. Lewers—Apparently you don't understand it.

Mr. Mills—Oh yes; I understand so much about this chart that I can give you lessons on it.

Mr. Lewers—I don't think you can.

Q. By Mr. Mills—Now, as a matter of fact, Mr. White, to be perfectly fair, as I think you try to be, you cannot make the figures agree, can you, the totals of the two columns?

A. I have simply attempted to set down things as I have found them. I have not made any attempt to reconcile figures.

Q. Assuming you did that in good faith, and I have no reason to disbelieve that, can't you answer that question so we can proceed to something else? The actual totals of the figures in that column, eliminating those figures after which the word "rate" appears, will not agree, will they, with the [2654] total which you have placed there?

A. Well, I will explain that to you.

Q. I don't care for an explanation. I ask you,

first, that question; then you may explain afterwards if you desire. Will they agree?

A. As these are an estimated daily production there would be no sense in adding them up, because that is simply an estimate.

Q. Why is it that you refuse to answer the question, Mr. White?

Mr. Lewers—I object to that as unfair.

Q. By Mr. Mills—Is it because you are an employee of the company?

A. Not at all.

Q. Under some feeling that you ought not to answer the question?

A. I have no interest one way or the other except to tell what I know.

Q. What is there about the question that you regard as a trap?

A. Well, because I see no way of adding oranges and apples and making oranges, in other words.

Q. Which are the oranges in this case?

A. “Rates”; and we have simply taken these from the telegrams and they are simply an estimated production. The evidence is the official production.

Q. I have told you to eliminate the figures where the word “rate” occurs, although you have not done it correctly even according to the figures themselves.

A. I think I have.

Q. Well, I won’t quibble with you. But eliminating those figures after which the word “rate” occurs, and taking only [2655] those figures after which

nothing appears, add them up, and can you make them come to the same total you have placed at the bottom of that column?

A. You could not add them up, because that is simply an estimate.

Q. You can add 400 and 400 and 96.

A. But it is an estimated production.

Q. It is not necessary for you to tell what that is. The telegram speaks for itself.

A. It does not, entirely.

Q. I ask you whether you can add up and make the total of the figures in that column which you have put down as actual production total the amount you have put at the foot of the column.

Mr. Lewers—I object to that question, on the ground that it assumes that he has totaled those as actual production to appear in the column. He has repeatedly stated he has not done anything of the kind. The actual production appears at the foot of the column, as he has stated.

Q. By Mr. Mills—Well, now, after so much coaching on the part of distinguished counsel for the defendant, I will ask you this question. See if we can get at it in another way. Will the figures on the column for January, excluding all figures after which the word “rate” appears, after being totaled, foot up to the same amount as the figures which you have put down at the foot of the column?

A. No; I think not.

Q. Now, in what respect do they differ?

A. Because they are simply estimates.

Q. I didn't ask you what they were. I asked you in what respect they differ in amount.

A. They would be more than the total shown for the month. [2656]

Q. And how much more, according to your own sheet?

Mr. Lewers—I submit that is a matter of calculation that is apparent on the face of the exhibit.

Mr. Mills—It is a matter of calculation for the benefit of the court.

A. I should say some 200 to 250 or 300 barrels more.

Q. Yes. So that the figures you have placed there, eliminating even those after which the word "rate" appears and allowing nothing for that time or those days, would show an actual production, according to your tabulation, of at least 200 barrels more than you have given for the month of January?

A. That is, taking the daily production shown as being—instead of its being at that "rate." The daily production, however, is simply an estimate. It may be a hundred barrels either way.

Q. Well, I have no desire to argue it with you, Mr. White. Now, as a matter of fact, when you constructed this tabulation you made up a sheet which would apparently show, day by day, from 1 to 31, and month by month, from the birth to the death of the well, that is, until the time when it was closed down, and have carried at the foot of each one of those columns what apparently ought to be a total of the columns, and without analysis the court might be mis-

lead in reading this sheet as to how that sheet was made up, might he not?

A. Well, it shows very plainly—

Q. Well, is not that true?

Mr. Lewers—You will not permit Mr. White to say five words before you interrupt him.

Mr. Mills—Mr. White and I are getting along very well. He is a very intelligent witness.

A. It is marked at the bottom of the page there, actual monthly production, Mr. Mills. [2657]

Q. Yes; but that actual monthly production is not, upon analysis, the sum of the different days' production which you have placed on the sheet, is it?

Mr. Lewers—Oh, that has been answered a dozen times over, Mr. Mills. They don't have anything to do with each other. I object to the useless consumption of time on that.

A. It would be impossible to add up the daily production shown, because they are estimates.

Q. By Mr. Mills—As a matter of fact, although you have constructed a sheet as if to show a sum total of all the figures carried in any one column under which it is headed, by taking your information for the entries in the column itself from one source, namely, telegrams and daily drilling reports, or what not, and taking that customarily in bookkeeping or accounting would appear to be the total of those figures from an entirely different source, namely monthly reports? Is not that true?

A. That is true.

Q. Now, you have no knowledge, excepting the

monthly reports as shown by letters introduced in evidence, here, of the daily production during any one month, of this particular well, have you?

A. No; there was no such reports made up.

Q. I didn't ask you if there was any such reports made up; and I move that that answer be stricken. I asked you if you had any knowledge of it.

A. No; I have not.

Q. Please don't volunteer anything until you are asked.

Mr. Lewers—I submit the witness has not volunteered anything.

Q. By Mr. Mills—Now, Mr. White, in that respect, namely, that the totals of the various columns for the different months during which this particular well was operated, were taken from [2658] an entirely different source from the source from which the different items were taken, is misleading, is it not?

A. I think not, Mr. Mills.

Q. Do you think that without the aid of an analysis of all of these telegrams, numbering several hundred or a thousand and all of these daily drilling reports, numbering several thousand, that the court could understand how those sum totals were made up that you put apparently at the foot of each column as if it were the sum total of the figures in the column?

Mr. Lewers—I submit that question is unfair. He has not put it “as if it were.” He put the words “actual monthly production.”

A. I fail to see how you could add the production

of any one column with the percentage of water and B. S. and so on, and make any intelligent footing.

Q. By Mr. Mills—That is not the question. Is not your report misleading to that extent?

A. I think not, if it is looked at in the proper light.

Q. Is there anything on this report to show that the figures which appear as the total at the foot of the columns for the several months were taken from anything except from the figures which appear above them in the column?

A. Well, from glancing up the columns you could see at once that you could not add those different figures.

Q. That might be due to a mistake, might it not?

A. No, I think not.

Q. Haven't you made at least three or four different mistakes in that one month of January?

A. Apparently we have, yes; inadvertently.

Q. And having made those mistakes you might have made a mistake at the foot of the column, might you not?

A. No, I think not. [2659]

Q. You think you would be safe at the foot of the column but unsafe on the others?

A. I think these are correct, Mr. Mills.

Q. As a matter of fact, Mr. White, this chart was constructed for the purpose of showing the production which was reported by the month to you and not for the purpose of showing the daily production? Is not that true?

A. No, it is not entirely true. This chart was constructed for the purpose of showing the history of the well in a concise form.

Q. Was it constructed to show the daily production of this particular well?

A. In a measure, yes.

Q. Do you show the daily production?

A. As far as we had the records, we showed it.

Q. Now, if you had gone to these telegrams and analyzed them carefully, you would have found that for the month of January you should have credited that well with 1771 barrels, instead of which you credit it only with 687 barrels because you took your information from the totals from an entirely different source.

A. The telegrams don't show the daily production. They show an estimated daily production.

Q. When you find a telegram which says 500 barrels were pumped on a certain day, does that show the actual production, or is that an estimate?

A. That is an estimate.

Q. And does the man who reports that particular item have sufficient qualification as a superintendent of a large concern like the Associated Oil Company to make a pretty close estimate of the production of a well for one day?

A. It depends on circumstances. In this case they had a [2660] very rough way of estimating it. If they had a tank to run the oil into they could gauge it very closely.

Q. Didn't they gauge the oil, and wasn't it the

custom of Mr. King to gauge the oil which came from these wells?

A. They did in a rough manner.

Q. Now, do you know, from the information which you have in your possession as custodian of the files of the Associated Oil Company, that on the 24th day of January, where you have credited this well with 400 barrels of oil, that the well did not pump twenty-four hours but produced 400 barrels in less than twenty-four hours?

A. Without referring to the record I couldn't answer that question.

Q. Well, is there any record in this court-room that would enlighten you on it?

A. Well, the daily drilling reports would show that.

Q. The drilling reports would show that?

A. Yes.

Q. You say you have not examined your drilling reports?

A. I have examined the drilling reports.

Q. I thought you said this morning you had not examined the drilling reports in making up this chart.

A. I think not.

Q. The daily drilling reports.

A. I examined them as they came in every day.

Q. Did you have those in mind in making this chart?

A. Are you referring to the typewritten report here?

Q. No; I am referring to what you called the daily drilling reports.

Mr. Lewers—Log reports, is what you mean.

Q. By Mr. Mills—No; I am talking about the daily drilling reports, using your own language.
[2661]

A. I certainly had access to the daily drilling reports.

Q. Well, did you have those in mind, I say, when you constructed these exhibits?

A. Yes, we used those in constructing them, partly.

Q. As a matter of fact, the well on Section 30 and other wells which were producing oil, operated by the Associated Oil Company in the Elk Hills, were using a part of their production to maintain some fifteen or eighteen other wells in fuel in the Elk Hills, were they not?

A. I think not.

Q. Didn't they ship fuel out to the other wells that they were operating, from these wells?

A. No; I think not. Not to any great extent.

Q. Do you think they shipped as high as two to three and four hundred barrels a month of this oil which they produced here, for fuel, to fifteen or eighteen other wells they were operating in the Elk Hills?

A. I think not.

Q. Do you know how much oil was shipped for fuel to the other wells?

A. No; I don't know of any that was shipped

from the production of the Elk Hills wells to other wells.

Q. Now, in the month of January, 1912, well No. 1 on Section 30 of 30-24 was operated only six days, was it not?

A. That is, you mean actually on the pump, Mr. Mills?

Q. Yes sir.

A. It would appear from this chart that it had been on the well about seven days.

Q. By Mr. Lewers—On the well or on the—

A. On the pump.

Q. By Mr. Mills—And it flowed 295 barrels, about, or nearly 300 barrels—that is, it produced 295 barrels, or [2662] nearly 300 barrels a day, for the month of January? Is not that true?

A. I think not.

Q. Notwithstanding that the pump was lowered 260 feet, or 240 feet.

A. It was lowered because the fluid level had lowered.

Q. I understand about the fluid level. It pumped in excess of 250 barrels a day for the time it was operated in the month of January, 1912, did it not?

A. I think not. I can't see it that way. There were intermittent days in there, you will notice, that the well was shut down—trouble.

Q. Now, Mr. White, you have taken great pains and trouble on this chart to show whenever there was any trouble, by inserting, on the day, instead of a blank for no production you would take the

pains to write in the word "trouble." In the month of January you wrote that word in five different times during a period of less than half a month, didn't you?

A. Yes.

Q. Why was it that Mr. King, as superintendent of the Associated Oil Company, when a well only pumped for eighteen hours, reported it as eighteen hours, when it pumped for ten hours he reported it as ten hours, when it pumped any aliquot part less than twenty-four hours he always reported the exact number of hours it pumped, and in all other instances he reported up to midnight of the day on which he reported?

A. Why did he do that?

Q. Yes.

A. That was to give us an estimate of the capacity of the well, I presume.

Q. And on every other day when he didn't report it for a time less than twenty-four hours, it pumped steadily right [2663] along for the twenty-four hours, steadily day after day, and you know it, don't you, Mr. White?

A. We took it for granted when he didn't put anything else in his advice to us, that the well had been pumping steadily.

Q. Certainly. Now, I want to ask you, in the month of February,—Now, if you took it for granted it was pumping right along steadily for twenty-four hours unless you got advice to the contrary, why was it that you gave this well no credit for the 22nd day

of January, at 350 barrels, and why was it that you gave no credit on the 23rd day of January for any production, and on the 24th day of 400 barrels, and on the 26th day of 400 barrels, and on the 28th day of 212 barrels, the 29th day of 90 barrels, the 30th day of 100 barrels?

Mr. Lewers—I submit that has all been asked and answered repeatedly.

A. We have shown that exactly that way on the schedule, Mr. Mills.

Q. By Mr. Mills—Then what you meant by that schedule was that you wanted to give the well the credit for that production for that day according as it appears there?

A. Well, those are simply estimates of the production for that day and we took it for granted that the telegram was an abbreviated way of reporting these things.

Q. Then, on the estimates will you estimate, please, how much production was actually made, according to your total sheet, for the month of January?

Mr. Lewers—I object to the useless consumption of time on going over something that has been repeatedly asked and answered. It is a frivolous waste of time.

Q. By Mr. Mills—Just estimate it, please, according to that.

A. Well, the estimate is shown by the figures there. I [2664] could not improve on that in any way.

Q. What you mean by the estimate would be the addition of those figures? Is that what you mean?

A. That is the only information I have in the matter, and I could not estimate the production to any better advantage.

Q. That is satisfactory. I won't attempt to test you out on addition. Now, let me call your attention to this telegram of February 3, reporting up to midnight of February 2, 1912. Is not that the end of it over here? That is the only way I can account for that sheet. This one here, at the end of this telegram; is not that the one that you found misplaced?

Mr. Lewers—No; the one that was misplaced is in June or July.

A. This says, "Reported January 29."

Q. By Mr. Mills—It seems to agree with your 300 barrels there, and that is the only way I can account for it.

A. Yes; evidently that is it.

Q. On February 3, in a telegram addressed to the same parties, Mr. Henderson and Mr. Bell, reporting drilling operations up to midnight of February 2nd, 1912, appears this statement: "Elk Hills—Section 30, No. 1. Placed on pump at 2600 feet at 5 P. M. Producing at rate of 300 barrels, gravity 25." On the next day, February 5, reporting for February 3, a telegram of that date, made and addressed to and by the same parties, states: "Elk Hills. Section 30, No. 1, pumping 72 barrels at 2600 feet, gravity 25." As you recollect it now, that was

the time when the pump was lowered from 2360 feet to 2600 feet, or shortly thereafter?

A. I think it was, Mr. Mills.

Q. On February 5, reporting up to midnight of February 4, telegram to and by the same parties, recites: "Elk Hills—Section 30, No. 1. Pumping 72 barrels at 2600 feet." On [2665] February 6, reporting up to midnight of February 5, 1912, a telegram to and by the same parties recites, "Elk Hills—Section 30, No. 1, pumped last twenty-four hours 53 barrels." On February 7, reporting up to midnight of February 6, a telegram to and by the same parties recites, "Elk Hills—Section 30, No. 1, pumping 53 barrels at 2600 feet." On February 8, reporting up to midnight of February 7, a telegram to and by the same parties recites, "Elk Hills, Section 30, No. 1, pumping 50 barrels at 2600 feet. Cut 8 per cent water, 12 per cent emulsion." Now, on February 9, reporting up to midnight of February 8, a telegram to and by the same parties recites, "Elk Hills, Section 30, No. 1, pumping 50 barrels at 2600 feet. Cut 8 per cent water, 12 per cent B. S." February 10, reporting up until February 9, a telegram to and by the same parties recites: "Elk Hills—Section 30, No. 1, pumping 50 barrels at 2600 feet. Put in bull-wheels and put on cable to swab well. Cut 8 per cent water, 12 per cent B. S." Now, on March 1, reporting up to midnight of February 29, 1912, a telegram to and by the same parties recites: "Section 30, No. 1, Elk Hills. Pumped last twenty-four hours 120 barrels of oil." Now, Mr. White,

construing those telegrams as you have construed all of these telegrams, that where no recitation to the contrary appears, and allowing for the cut of 20 per cent of water and emulsion in each of the instances, that well should have been credited with a net production of 790 barrels instead of 560, as you have stated, for the month of February? Is not that true?

A. I couldn't say it is.

Q. You can't say it is not, either, can you?

A. I would say that you could not add those daily productions and emulsions and so on and arrive at any definite results. The footing shows the amount of oil we saved, and I believe [2666] that to be correct.

Q. You can't swear now, on your oath, that it is not true, can you?

A. Well, I don't believe there is any way of adding those daily productions and arriving at any definite results.

Q. Assuming that the well, unless the contrary appears from the telegrams, was pumping full twenty-four hours, then you have failed to credit that well with a substantial per cent of its production for that month? Is not that true?

Mr. Lewers—I submit that has been asked and answered repeatedly. Counsel will insist on the assumption that those are true totals of the production, made in that way, and the witness has repeatedly said they are not. I don't think it is a fair proposition to ask that sort of a question.

Mr. How—Not intended to be or ever claimed to be.

Mr. Mills—That is, you now repudiate your offer of yesterday and desire to withdraw it?

Mr. Lewers—I do not. I understood it. I supposed any intelligent man would. I never accused you of lack of intelligence, so I can only attribute your constant misinterpretation of it to some other cause.

Mr. Mills—Read the question. (Question repeated by Special Examiner.)

Mr. Lewers—I add the further objection that the question is hypothetical, assuming something in evidence which is not.

A. I would simply put down the daily estimated production as I received it from our records.

Q. By Mr. Mills—The daily estimated production?

A. Wherever it was shown.

Q. Now, assuming that that is the estimated production, you have failed to credit the well with the amount of production it is entitled to, haven't you, by over a hundred barrels of oil, [2667] or nearly two hundred?

A. Well, the daily estimate may be in error to more than that amount, or that amount at least.

Q. 230 barrels?

A. The daily estimated production is a thing that fluctuates greatly. It may be correct, and it may be a hundred barrels either way.

Q. Now, do I understand you to say that the fig-

ures which appear opposite the daily blanks here on these sheets are the estimated production for the particular month in the column in which they appear?

A. They are supposed to be; yes.

Q. Regardless of what appears at the foot of the column?

A. Yes. The footing has nothing whatever to do with the total.

Q. So that on the entire three wells, for the full time, you find that the total estimated production is 13,103 barrels as against a credit of 6,628 barrels?

A. I have not totaled the figures, Mr. Mills.

Q. Now, assuming that I have correctly added those figures, what became of the rest of that oil?

Mr. Lewers—I object to that question on the ground that it is assuming something not in evidence.

Q. By Mr. Mills—Referring to the month of March, 1912, on well No. 1 of Section 30, 30-24, I see you have the figure opposite March 1, or under March 1, 75 barrels. Was that actual or estimated production that you intended?

A. They were all estimated daily productions.

Q. What do you mean by the statement “They were all estimated?” Were none of them actual?

A. Except where they were shown here as actual gauges, they were estimates. [2668]

Q. For instance, where do you show on actual gauge?

A. In the telegrams, I think one day in January.

Q. Well, this occurs as one of actual production for twenty-four hours, doesn't it, March 1st? I refer now to telegram tendered by Mr. Lewers in support of the accuracy of this chart, of the date of March 2, 1912, addressed to the same and written by the same parties, wherein it recites: "Elk Hills, Section 30, No. 1. Pumped 75 barrels last twenty-four hours." That was an actual production, wasn't it?

A. I couldn't state, Mr. Mills.

Q. Well, according to this telegram, what would you say? Would you construe that to be an actual production?

A. I would construe that as an estimate.

Q. That is, where it flatly says, "Pumped 75 barrels last twenty-four hours," you would construe that as an estimate?

A. Yes; in the absence of further information I would say that was an estimate.

Q. On March 4, 1912, a telegram addressed to Henderson and Bell by King recites as follows: "Section 30, No. 1, pumped 50 barrels last twenty-four hours." That makes 125 barrels, does it not, actual production?

A. I couldn't say whether it is actual or estimated production.

Q. And the telegram of March 4, reporting for March 3, same parties, "No. 1, pumped 50 barrels last twenty-four hours;" and telegram of the 5th, reporting for the 4th, which recites, "Pumped 50 barrels last twenty-four hours;" and a telegram of the

6th, reporting for the 5th, which recites that the well was flooded with 250 barrels of oil to place back on the pump; on the 7th of March, reporting for the 6th of March, in a telegram by the same to the same parties, which recites that this particular well pumped 200 barrels the last twenty- [2669] four hours—will you look at these? I hand you now the rest of the telegrams for that month, beginning with March, 1911, reporting for March, 1910, and ask you to glance through them preparatory to answering a question. (Telegrams handed to witness.) Now, do you find, Mr. White, after examining the balance of the telegrams for the month of March, 1912, relating to well No. 1 on Section 30, that your estimated production agrees with the telegram for each of the days?

A. You have reference to the totals shown at bottom of the columns?

A. No; I mean with reference to the daily entries.

A. I think the daily entries are substantially correct.

Q. That is, you find that your entry, or the entry of the daily production, for that month agrees with the telegrams as to those days?

A. I think so.

Q. Can you give us a total of the estimated production as shown by the daily estimate in that column?

Mr. Lewers—I object to that. If counsel desires

to add up on a fruitless chase of that kind, let him do it himself and not take the time of the witness.

A. It seems here—

Q. By Mr. Mills—Well, just add them up as estimates.

A. In one case they had a day where they poured oil back into the well.

Q. Well, add the 250 barrels first which the telegram shows came from the well, and then deduct it because it was poured back. That is a simple calculation, isn't it?

A. I see no way of making the totals agree.

Q. I don't ask you to have the totals agree. I ask you what the total of your estimate for daily production is.

A. I have no voice in the matter. The total estimated [2670] production is shown hereon.

Q. Well, will you kindly foot up the figures which you put down as the daily estimated production and tell me what it is?

A. I can add up these daily productions.

Q. That is what I want you to do.

A. But it will be of no value, I believe.

Mr Lewers — Well, add them up and see if they agree with Mr Mill's arithmetic.

A. Well, adding up the daily estimated production, excluding those days on which "rate" is shown, and also excluding 200 or 225 barrels that was run back into the well to flood it, would give an estimated total for the month of 600 barrels.

Q By Mr Mills — That is fater excluding the 150 for the 18th?

A Excluding the day of the 18th when it pumped at the 150 barrel rate.

Q And the one on the 10th?

A And also one on the 10th.

Q Of 100 barrel —

A 100 barrel rate.

Q Now, what did you do with that 250 barrels?

A With the 250 barrels that was run back into the hole?

Q Yes.

A Well, that was included in the production in the first four days.

Q Yes.

A That would practically offset the first four days' production. Outside of that there would be approximately 600 barrels as an estimated production for the month.

Q Now, I show you a telegram of March 11th, reporting for March 10th, and in that portion of it which refers to the production of this well do you find anything that indicates [2671] the well was not pumped for twenty-four hours at a rate of 100 barrels? I am referring to this particular telegram.

A Well, not by referring to this particular telegram, but by referring to the telegram for the day previous you will find the well was shut down accumulating head.

Q Well, assuming that it was, the inference from

that telegram is that it pumped twenty-four hours? It says so.

A Yes.

Q And that it pumped at the rate of 100 barrels? Is not that true?

A That is true; but you should take into consideration the fact that it was pumping a head that had accumulated the day previous.

Q Well, supposing it had; how much oil would you say it pumped for that day?

A There is no use stating, but I would say from this telegram it had pumped 100 barrels during that day.

Q Now, I refer you to the telegram of March 19th, to the same parties, by Mr. King, reporting up to midnight of March 18th. Will you state what the reference is there to the amount of oil pumped on that day from this well?

A This telegram states that this well pumped at the rate of 150 barrels during last twelve hours.

Q Well, how much oil would that be actual production?

A That would be in the neighborhood of 75 barrels.

Q So that, by adding, then, the 100 barrels for the 10th day of March and 75 barrels for the 18th day of March to your estimated total, how much would you have for the month of March?

A Well, that would make an estimated production of 775 barrels.

Q Now, what was the production that you placed

there from the reports, monthly reports, for that month? [2672]

A The amount of oil reported to us as being actual production for the month of March was 320 barrels.

Q There is actually a difference, then, between the estimated amount by the daily production and the amount reported to you, of 455 barrels?

A Yes; taking into consideration the seepage and evaporation.

Q Or more than a hundred per cent. Is not that true?

A Yes.

Q How many days during that month of March was that well on the pump?

A Approximately twenty days.

Q And notwithstanding all of the trouble which your chart shows the well had, pulling rods for days at a stretch, and trouble of other kinds, and flooding the well, the estimated production as you have now figured it out amounts to 38- $\frac{3}{4}$ barrels a day, about, of 25 gravity oil?

A That would be the estimated production of it. I have not figured it.

Q Now, Mr White, what is the difference in value between 25 gravity oil and, say, 15 gravity oil?

A There is considerable difference. It depends on the market fluctuations, you know.

Q Well, is there any general relative value between the two?

A Oh, yes.

Q How would you express it?

A Well, I should say that 25 is worth in the neighborhood of 55 cents a barrel, and 15 is worth practically 30 cents.

Q It is almost double, then, the value of oil at the gravity of 15?

A That is, if it is clean, commercial oil. [2673]

Q This well No. 1 on Section 30 of 30 - 24, taking the estimated daily production as you have given it, and as shown by the telegrams, excepting where you have made errors, would show that that well was operated actually about ninety-three days, with an average daily production of fifty-four barrels, would it not?

A No; I think the well was operated over a period of practically eight months.

Q Well, I am talking about being on the pump.

A Well, it was on the pump off and on over a period of eight months — seven months, at least.

Q Well, was it on the pump during the months of October and November, 1911?

A No.

Q Was it on the pump in August and September of that year?

A Not 1911. It was put on the pump in January, about the 19th of January it was put on the pump, and was on and off until — well, until August.

Q That is true enough, but I am asking you when it was on and not off. It would be about ninety-three days by actual count, wouldn't it, according to your own chart?

A I have not computed it. I have not added up the number of days, Mr Mills.

Q Do you think, now, that your chart, Defendants' Exhibit 172, correctly states the time when that well was on and off the pump?

A I think so. I think that statement is substantially correct.

Q You say "substantially correct". Is that as far as you will go?

A Well, it is correct, to the best of my knowledge and belief. [2674]

Q I call your attention to a telegram dated June 3, reporting up to midnight of June 1st, 1912, between the same parties. What is the statement there about Section 24 of the Elk Hills?

A "Elk Hills — Section 24, No. 3, pumped 40 barrels of oil, 20 barrels of M. and B. S. Most a shale. About 12 per cent water."

Q They actually pumped 40 barrels of oil and 20 barrels of M. and B.S., of about 12 per cent water. Is that correct?

A The "M and B. S., mostly shale and about 12 per cent water."

Q Yes. That refers to the mud and B.S. ?

A Yes.

Q But it was 40 barrels of oil pumped on that day, was it not?

A Well, this may be 40 barrels of sludge. It depends whether it could be separated or not.

Q What does it say.

A "40 barrels of oil and M. and B.S."

Q Is there anything there that says anything about "rate"?

A No.

Q Yet on your sheet for well No. 3 on Section 24 you estimate the production of that day at a "rate" of 40 barrels of oil.

A Which would mean the same thing.

Q It wouldn't mean the same thing if that well only pumped one hour, would it?

A No.

Q Is there anything in this telegram to show that that well pumped twenty-four hours?

A There is nothing to show the contrary.

Q Therefore you assert that it must have pumped that? [2675]

A 40 barrels in the twenty-four hours.

Q Very well. Now, we will use the same plan on all these. Pardon me a moment. I call your attention to telegram of June 3, reporting up to midnight of June 2. Will you examine it with reference to the report on the well on Section 24 and state how much oil it reports having been pumped that day?

A "Elk Hills — Section 24, No. 3. Pumped at 2500 feet 45 barrels of oil, 25 barrels bluish shale or rotary mud, 10 barrels of water."

Q Now, what does the statement which you prepared and was introduced in this case as Defendants' Exhibit 174 show for that day?

A It shows it had produced 40 barrels, some oil, mud and water.

Q Doesn't it, on the contrary, show that it produced at the rate of 40 barrels?

A It is the same thing. 40 barrels for the twenty-four hours.

Q Will you turn to the telegram dated the 5th day of June, reporting for the 4th, on Section 24?

A "Elk Hills, — Section 24, No. 3. Pumped 90 barrels of oil, 10 barrels M. and B.S. in nine hours. Still pumping and shows great improvement.

Q How much was actually pumped that day?

A 90 barrels.

Q Now, will you turn to the telegram of the 6th, relating to the 5th, as to the same well?

A "Pumped 190 barrels and 10 barrels M. and B.S. the last twenty-four hours."

Q How many barrels of oil, then, would you say were produced on that well for that day?

A Well, their estimate is 190 barrels. [2676]

Q Well, using that telegram as the basis of information, how many barrels would you say were pumped on that well on that day?

A Approximately 190 barrels.

Q Now, take the telegram of June 7, reporting for the 6th.

A "Elk Hills — 24, No. 3, pumped 125 barrels net last twenty-four hours. Only slight trace of water."

Q Will you refer to your chart and state what entry you have made for that day?

A "125 barrels (rate) for the twenty-four hours".

Q How many barrels, then, do you say were pumped from that well on June 6th?

A Well, their estimated production is 125 barrels.

Q Do they say "estimated production" in the telegram?

A No. That would be my understanding of the production for that day. They estimate it at 125.

Q In other words, if the telegram even says "125 barrels net pumped", you say it is estimated?

A Well, that was net in this case because they had no M. and B. S.

Q How many barrels, according to the telegram of the 8th of June, were pumped from that well?

A "Pumped 125 barrels. Shows some water."

Q How many barrels were pumped on the 9th from that well?

A "Pumped 174 barrels pure oil. Shows quantity of gas."

Q How many barrels were pumped on the 8th?

A "Pumped 115 barrels practically all oil and pure, gravity 21.8, cut .9 water .2 B.S."

Q What does that .9 mean?

A That would be 9/10th of 1 per cent.

Q Practically 1 per cent? [2677]

A Yes; practically.

Q That is on the 8th, is it?

A That is to midnight of June 8th.

Q So that 1 per cent of that 115 barrels of pure oil would be about one barrel and a seventh?

A Yes.

Q And on the 10th of June how many barrels were pumped from that well?

A "Pumped 120 barrels showing large quantity of gas."

Q How many barrels were pumped on the 12th of June from that well?

A "Well flowed almost continuously while pulling tubing."

Q How many barrels?

A "This morning started flowing between casings. At present time is making 800 or 900 barrels. This may not keep up at this rate."

Q Between eight and nine hundred barrels?

A Eight and nine hundred rate.

Q Does it say "rate"?

A No; but it says here, "It is making 800 or 900 barrels. This may not keep up at this rate."

Q Yes. On the 14th how many barrels were pumped from that well, 14th of June?

A "Flowed 250 barrels through 6-1/4" casing."

Q And on the 15th how many barrels did it flow?

A "Flowed 300 barrels."

Q On the 16th how many barrels were produced from that well?

A "Flowed spasmodically, putting out large quantity of oil sand; also making good clean oil. Produced 750 barrels oil yesterday."

Q That would be the 15th, wouldn't it? It is reporting [2678] up to midnight of the 16th.

A Yes.

Q On the 17th how many barrels were produced from that well?

A On the 17th there was produced 325 barrels.

Q On the 18th how many barrels were produced from that well?

A 225 barrels.

Q On the 19th how many barrels were produced from that well?

A 200 barrels.

Q On the 20th how many barrels were produced there?

A 200 barrels.

Q On the 21st?

A 175 barrels.

Q On the 22nd?

A 150 barrels

Q Was that pumped or did it flow?

A This is flowing.

Q On the 23rd?

A 150 barrels.

Q Now, how many were produced on the 24th of June from that well?

A 175 barrels.

Q On the 24th?

A On the 24th; midnight, June 24th.

Q Will you read the entry for that day, please, on the telegram?

A "Elk Hills, Section 24, No. 3".

Q What date is that telegram?

A "June 25th.", reporting up to midnight of June 24th.

Q Yes. [2679]

A "Elk Hills, Section 24, No. 3. Cleaning out at 2940. Well flowed 175 barrels. Sand comes in about as fast as taken out."

Q On the 25th of June how many barrels flowed from that well?

A About 150 barrels.

Q On the 26th how many barrels were flowing from that well?

A 125 barrels.

Q What is the entry for that day?

A "Elk Hills, Section 24, No. 3. Cleaned out to 2950 feet. Well flows continuously. Made 125 barrels."

Q On the 27th of June how many barrels were produced from that well?

A 100 barrels.

Q Will you read the entry?

A "Elk Hills, Section 24, No. 3. Cleaned out to 2990 feet. Gas blows sand out of hole as fast as tools mix it up in bottom."

Q On the 28th of June how many barrels were produced from that well?

A 100 barrels.

Q Now, on the 29th and 30th of June there was a cleaning out generally of the well, was there not, according to the telegrams?

A "Cleaning out."

Q Yes. So that, according to the actual reports from the field made daily, and not from any monthly statement, that well produced for the month of June,

working twenty-six days, 5214 barrels of oil, whereas from the report which you received from the field and from which you made up this exhibit you have stated the total to be, for that month, 2965 barrels?
[2680]

A Yes.

Q Or a difference of a little over 2000 barrels of oil, one well, in the month. As a matter of fact, Mr. White, that well, for the month of June, averaged 200 barrels a day, did it not, working 26 days during that month?

A No, I think not.

Q Well, assuming that I have added the figures correctly, 5214 barrels per month divided by 26 would give you the amount per day, would it not?

A The amount of the estimated production?

Q Yes.

A Yes.

Q Which would be about 200 barrels. Is that correct?

A Yes, approximately.

Q Now, will you take the month of August, so as to expedite matters, beginning with say the 4th of August — the telegram of the 4th, reporting for the 3rd. What oil was produced?

A "Flowing at rate of 50 barrels."

Q And on the 4th of August?

A "Flowing at rate of 100 barrels."

Q The 5th?

A "Flowing 100 barrels."

Q The 10th?

A Flowing a trifle over 100 barrels a day.

Q What is the entry?

A "Elk Hills, 24, 3. Fishing for lost drilling bit. Well flowing trifle over 100 barrels per day actual measurement in tank."

Q For the 11th of August. Read the entry.

A "Fishing for drill bit, well flowing 100 barrels per twenty-four hours day. Also flowing regularly with oil, a [2681] quantity of 3,200,000 cubic feet gas." Does your chart show any record of the gas on that well, that is, your exhibit?

A No. I have not shown any gas on there.

Q That is, Exhibit 174. Now, for the 12th of August.

A "Flowing 100 barrels oil, 3,000,000 cubic feet gas. Fishing for drill bit."

Q The 13th?

A "Flowed 100 barrels, 3,000,000 cubic feet gas. Fishing for bit."

Q Do you understand that they were fishing for that bit while this was flowing oil?

A Yes sir. I have got it so marked.

Q What was the 14th?

A "Flowing 100 barrels oil, 3,000,000 feet gas, fishing for bit."

Q What kind of a bit is that they were fishing for? Drill bit?

A Drill bit; yes.

Q Do you know the weight of it?

A No. Let's see if that was a rotary.

Q Yes; that is a rotary.

A It was not so much the weight of it; it is the awkward part to get hold of.

Q Now, the 15th. What performance did the well make on that date?

A "Flowing same prior report. Making special fishing tool to fish for lost bit."

Q On the 16th?

A "Flowing same as yesterday. Will fish for bit today."

Q On the 17th?

A "Flowing the same. Fishing for bit."

Q On the 18th? [2682]

A "Flowing, and trying to get hole cleaned out down to bit. Sand running in badly."

Q On the 19th?

A "Flowing, and fishing for bit."

Q On the 20th?

A "Unable to recover drill bit. Will therefore cap well as directed."

Q Now, who had the power to direct the capping of that well?

A Mr Bell, the field manager.

Q Now, will you read the entry for the 21st of August?

A "Elk Hills, Section 24, No. 3. Closing well in tight to shut down."

Q Read the telegram of the 22nd, so far as it relates to this well.

A "Elk Hills. Section 24, No. 3. Capping and will be closed down today."

Q On the 23rd. What does the telegram say for the 23rd?

A "Elk Hills. All wells shutting down."

Q Is that all it says?

A That is all.

Q Is there a later telegram than that?

A There is one on the 24th here, same thing.

Q Well, read that one.

A "Elk Hills. All wells closed down."

Q As a matter of fact, that well was closed down by direction of somebody at a time when the drill bit could not be recovered, was it not?

A Yes.

Q Has that ever been recovered?

A Not to date.

Q During the entire month of August, then, that well was [2683] continually flowing, was it not, according to the reports which you have read from those telegrams?

A Up until the 21st of August.

Q Until the time it closed down?

A Yes.

Q And it flowed at the rate of 100 barrels a day during the month of August, beginning at the 4th day of August?

A Well, this report does not show that that way. It shows that on the 4th and 5th it flowed 100 barrels; and then, commencing with the —

Q You are reading from your chart now?

A Yes.

Q I am talking about the telegrams you just read.

A Well, I have not —

Q Well, go on with your chart.

A It shows that the 4th and 5th it flowed 100 barrels, then, commencing with the 10th, it flowed 100 barrels until the 21st.

Q That is, daily?

A Up until the 21st of August.

Q That is, daily?

A 100 barrels daily.

Q Now, how many barrels would that be, during the month of August? That is a simple calculation.

A That would be an estimate of 1250 barrels.

Q And how many barrels are credited, according to the plan by which you constructed the chart, for that month?

A The chart shows 150 barrels. The balance, or a great deal of the oil, being run back into the hole to keep down the gas pressure.

Q You think they ran back 1250 barrels or 1000 barrels into a hole that will hold 175 barrels? [2684]

A The hole will hold more than 175 barrels.

Q How many barrels will a hole hold?

A It will depend a great deal on the formation. The casing itself would hold 175 barrels, approximately.

Q Where did you get the information that we find on your total for the month of August, on Exhibit 174, namely, "150 barrels. All production this month pumped backed into hole to hold back gas pressure."? Where did you get that information?

A Well, at the time I made up this schedule I no-

ticed this same discrepancy; that is, adding up the daily drill production, it looked to me we ought to have more than 150 barrels within the month. So I took the matter up with Superintendent King and asked his explanation of it.

Q That is, orally?

A No. By wire.

Q Well, without stating what the wire contained, you got it, then, from some wire that Mr King sent you?

A He sent me his explanation of why the month was not more than 150 barrels, stating that —

Q Never mind. Don't state what the wire contained. You are not entitled to give that. Then you have not produced anything before the court here to show how you came to make that statement, have you, in this chart?

A No; I have not. We can do it, Mr Mills.

Q Well, it would probably be incompetent evidence at this late date. The Associated Oil Company has no title to that land, has it, Mr. White?

Mr Lewers — I object, as not cross-examination, and asking for a legal conclusion.

A I am not acquainted with the details of that, Mr Mills. I couldn't tell you.

Q By Mr Mills — Are you able to state on your oath that [2685] the oil company have anything more than a contract with some locators to drill that land?

A I couldn't say just what arrangement they have made.

Q Well, generally, don't you know that they have

a contract with certain locators in the Elk Hills to drill certain land there?

A That is simply hearsay, again, Mr Mills.

Q Yes; that is what I mean. You know that, don't you, generally?

A I know that I have heard the rumor.

Q Yes. Now, all these wells were ordered closed, including well No. 1 on Section 26 and well No. 3 on Section 24, of 30 - 23, and well No. 1 of Section 30, 30 - 24, besides all the other wells which were in operation or being drilled, dominated by the Associated Oil Company — were closed and shut down under the same order?

A Some of them had been shut down prior to that time.

Q But all that were then operating were shut down under the one order?

A Well, I would not say that exactly. Some of them had been shut down prior.

Q All that were operating at the date that this well was shut down were shut down under the same order?

A I believe that was the only one operating.

Q There were two other wells operating in the month of August at about that time, were there not?

A Yes.

Q And they were shut down under that order, which was issued from San Francisco?

A Yes.

Q Now, do you know where that order emanated from?

A It emanated from the San Francisco office.
[2686]

Q And do you know from what officer the order came?

A I couldn't say. It was transmitted by Mr Bell, field manager.

Q Don't you keep custody of the files of Mr. Bell's office and have access to the order which shows?

A Well, a great many of those things are verbal and not on paper.

Q Did you ever see a written order in your files ordering those wells shut down?

A I think I have seen it.

Q You don't know whether it was accompanied by verbal instructions or not?

A Well, it may have been. I couldn't say. But I believe we have a letter on record in reference to authorizing Mr Bell to shut them down.

Q Now, from whom is that letter. Who signed that letter?

A I couldn't say whether it was Mr Porter or Mr Scribner or Mr Henderson.

Q Did Mr William F. Herrin, of the Southern Pacific Company, have anything to do with the Associated Oil Company while you were in custody of the files of the office you now hold?

A In what way?

Q In any way?

A I have never come in contact on anything with Mr Herrin.

Q Mr Herrin was an officer of the Associated Oil Company at one time, was he not?

A I believe so; yes.

Q And what office did he hold?

A I think he was a director and —

Q By Mr Lewers — He was president.

A He was an official, a president, at one time, I believe. [2687]

Q By Mr Mills — Were you in the employ of that company while Mr Herrin was president.

A Yes.

Q He is the same William F. Herrin who is in the law department of the Southern Pacific Company of this city, is he not?

A I don't know anything about Mr Herrin. I believe he is; yes.

Q Who keeps the minutes of the proceedings of the Board of directors of the Associated Oil Company?

Mr Lewers — I object, on the ground this is not cross-examination, and I don't think it is proper. You have already asked and ascertained from the secretary of the company who keeps them.

A The secretary of the Associated Oil Company, Mr P. G. Williams.

Whereupon the further taking of testimony herein was adjourned until Wednesday, July 9, 1913, at 10 o'clock A. M., at the same place.

On Wednesday, July 9, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment:

W. E. WHITE.

recalled, CROSS-EXAMINATION resumed.

By Mr Mills:

Q Who was T. E. Barnes?

A T. E. Barnes was the superintendent, or under-superintendent, drilling foreman, of the Elk Hills division.

Q And did he have authority to act in the absence of Mr [2688] King, who was the superintendent?

A Yes.

Q In all matters pertaining to the jurisdiction of Mr. King?

A Not exactly. All matters pertaining to the Elk Hills wells.

Q I mean as to the Elk Hills wells.

A Yes.

Q Now, Mr White, you have spoken of getting some information which forms the basis of these exhibits, Defendants' Exhibit 172, 173, and 174, by the medium of telephone from the field, with Mr King. Did you ever telephone to Mr Barnes?

A I think you misunderstand me. There was no information secured over the phone that was made the basis of this schedule.

Q Now, let us understand each other. Didn't you state yesterday —

Mr Lewers — Telegrams, he said.

Q By Mr Mills — Oh, by telegram?

A There was one telegram.

Q Now, did you ever have any conversation with

Mr Barnes with reference to the Elk Hills wells of the Associated Oil Company?

A I may have, but I don't recall any conversation with Mr Barnes.

Q Did you ever talk with Mr Barnes, at some time prior to the 15th day of May, 1912, with reference to the construction of this 4-inch pipeline from the Elk Hills to the Pioneer Midway on Section 30 of 31- 23?

A I don't recall any such conversation.

Q Did Mr Barnes, at any time in or about the month of May, 1912, have a discussion with you about the purpose of the [2689] construction of what you have termed the pipeline No. 1, which runs from these wells in the Elk Hills to the Pioneer Midway?

A I can't recall having any conversation, practically, with Mr Barnes at all.

Q In which Mr Barnes stated that that line was constructed for the purpose not of supplying oil for fuel for work upon those sections of lands, but for the purpose of sending oil from the wells to Fellows?

Mr Lewers — To which I object, on the ground that no foundation has been laid for the question, that no time or place is fixed, and that it is obvious, considering the answer of the witness, that he had no conversation with Mr Barnes about the matter at all, that counsel is now following the same procedure that was followed in the examination of the witness J. A. Taff and others, in which, under the guise of asking questions purporting to be impeaching questions, counsel attempted to testify into the record concerning statements alleged to have been made by T. E. Barnes and

others at different times and places; and I assign the repetition of this as prejudicial misconduct and as unprofessional conduct on the part of counsel. And I make the further objection that this is not cross-examination of any matter that was brought out in the direct testimony of this witness. And I desire to add the further objection that the statement of counsel purports to be taken from evidence given by T. E. Barnes at the land office hearing, in which T. E. Barnes testified, not with reference to the pipeline counsel now refers to but with reference to a branch pipeline that ran from Section 30 over to Section 26 — an entirely different matter — and not pipeline No. 1.

A I don't recall having any conversation with Mr. Barnes.

Q By Mr Mills — Did you have any conversation with a man by the name of James McKay, who is the "trouble" man for the [2690] Associated Oil Company?

A No; I think not.

Q With reference to the same subject.

A I don't recall any such conversation.

Q Are you familiar with the practical operation of oil wells?

A In a measure.

Q That is, have you ever operated yourself?

A No.

Q Have you ever been in charge of the operation of a well either drilling or at any time?

A No.

Q You spoke of this bit, or drill head, or drilling stem that was lost in the well on No. 3 of Section 24 in 30 - 23. Do you know what that was?

A It was what we call a fish-tail bit.

Q And what size was it? Do you know? Diameter, and so forth.

A I don't know.

Q Will you examine the documents you brought into court here and ascertain the diameter of that pipe or casing at that point where it was lost?

A It was a 6- $\frac{1}{4}$ bit, or a bit run into 6- $\frac{1}{4}$ pipe.

Q Do you know what the weight of a bit of that size would be?

A No, I don't

Q Well, as near as you can estimate it from those you have seen.

A Well, I should say 200 or 250 pounds.

Q What was the size of the casing?

A 6- $\frac{1}{4}$ inch.

Q Now, the drill bit, or the bit, the drill stem, or [2691] whatever it was that dropped in there, was less in diameter than the casing, was it not?

A Yes.

Q How much less?

A Oh, slightly less. It makes a 6- $\frac{1}{4}$ inch hole.

Q About six inches?

A Practically six inches.

Q Do you know what the elevation of Section 30 of 31- 23 is?

A 30 of 31- 23? I could not any more than give you an estimate.

Q About 1200 feet, isn't it?

A I don't believe it is quite that high. It may be.

Q Do you know what the elevation of Section 24 of 30 -23 is?

A No, I do not.

Q About 1300 feet, as nearly as you recollect it, isn't it?

A I know there is a slight difference in elevation between Section 30 in 31- 23 and Section 24 in 30 - 23. No great difference in elevation.

Q Now, in order for that pipe line to get to Section 24 of 30 - 23 from Section 30 of 30- 23, it would necessarily cross the valley at a lower point than the Pioneer Midway, or about 875 feet, would it not, elevation?

A A line running from that well to the Pioneer Midway would cross a lower elevation than the Pioneer Midway property.

Q And, as nearly as you recollect, it would be about 875 feet elevation at the lower point where it crosses?

A I couldn't state.

Q Do you know, of your own knowledge, whether there is more than one pumping station connected with pipe line No. 1? [2692]

A There is only one pumping station I know of.

Q Do you know, as a matter of fact, that it is connected? Have you seen it?

A It was connected —

Q Have you seen it, is the question.

A Yes.

Q You saw it connected?

A I didn't look into the details of the connections, but I know that we pumped oil from that station through the line, and it must have been connected.

Q Well, how do you know that?

A Because that is where we secured our fuel oil for the drilling of the wells.

Q Well, I am asking you if you know of your own personal knowledge, from something you have seen yourself and not from something you have read or heard other people talk about?

A Well, I have not seen the oil going through the line; no.

Q And you have not actually seen the connection of that line, have you?

A No, I have not seen the details of the connection.

Mr Mills — Then I move that the answer of the witness, so far as it appears to be hearsay, be stricken.

Mr Lewers — I submit that the answers are proper and responsive to your questions.

Q By Mr Mills — Mr White, will you look at this drilling slip and give the date of it, please, and the well to which it refers?

A Well 1, Section 30, Township 30 - 24.

Q What date?

A For twenty-four hours ending 12 P. M., 1st day of June, 1911.

Q What endorsement is there on that drilling slip? [2693]

A L. J. King.

Q And what remarks appear above his signature?

A "Hauling pump and 4-inch line to take care of any oil that well may flow."

Q Is that the original daily drilling report for that day which was sent in from the field?

A Yes.

Q I hand you another drilling report. Will you state for what day that report is and what the endorsements are?

A For the twenty-four hours ending 12 P. M. the 2nd day of June, 1911.

Q And signed by whom?

A Signed by "L. J. K."

Q What is that?

A It is evidently intended for the signature of L. J. King.

Q Is that the original daily drilling report for that day on that well?

A I believe it is; yes.

Q Will you read the remarks which Mr King put or caused to be put on that report?

A "In starting to wash mud out of hole, hole was found to be over one-half full of solid oil. Water evidently having seeped away through the oil sand, and mud from rotary had settled to bottom. Well showed so much gas that it is not advisable to complete washing or drill any further until we have line installed to take care of production."

Q Now, I hand you another daily drilling report. Please state what that is.

A It covers the period of twenty-four hours ending 12 P. M. the 3rd day of June, 1911.

Q On what well? [2694]

A Well No. 1, Section 30, 30 - 24.

Q Signed by whom?

A Signed by L. J. King.

Q And what statements appear upon that report?

A "Generally placing things in condition to handle flow of oil."

Q Is that an original daily drilling report?

A Yes.

Q I hand you another paper. Will you state what that is?

A This covers a period of twenty-four hours ending 12 P.M. the 4th day of June, 1911.

Q On what well?

A Well No. 1, Section 30, 30 - 24.

Q And signed by the same party?

A Signed L. J. King, per G.N.

Q Is that an original daily drilling report on that well for that day?

A Yes.

Q Will you read the endorsement on that, please?

A "Generally placing things in condition to handle flow of oil."

Q I hand you another paper. Will you state what that is?

A Report for the twenty-four hours ending 12 P. M. the 5th day of June, 1911.

Q For the same well?

A Well No. 1, Section 30, Township 30 - 24.

Q And by whom signed?

A Signed by L. J. King, per G.N.

Q What is the endorsement?

A "Generally placing things in condition to handle flow of oil."

Q I hand you another paper. Will you state what that is? [2695]

A It covers a period of twenty-four hours ending 12 P. M. the 6th day of June, 1911, well 1, Section 30.

Q Signed by the same party?

A Signed by L. J. King, By G.N.

Q And what is the endorsement?

A "Preparing to handle expected flow of oil."

Q I hand you another paper. Please state what that is.

A This covers the period ending at 12 P. M. the 9th day of June, 1911, signed by L. J. King, per G.N.

Q Is that the original daily drilling report for that day?

A Yes.

Q On the same well?

A On the same well.

Q Signed by the same party?

A Yes.

Q What is the endorsement?

A "Preparing to handle expected flow of oil".

Q I hand you another paper. Please state what that is.

A This covers a period of twenty-four hours ending 12 P. M. the 10th day of June, 1911.

Q What is it?

A It is the original daily drilling report.

Q Upon the same well, signed by the same party?

A Yes.

Q What is the endorsement?

A "Preparing to handle expected flow of oil".

Q It appears, then, from the daily drilling report of that period that that 4-inch line was used for the purpose of taking care of any accumulation of oil or production of oil from that well? Is not that true?

Mr Lewers — To which I object, on the ground that the [2696] question is indefinite. It does not say which 4-inch line you are referring to. The other 4-inch line, it seems, was constructed in 1910.

A This 4-inch line they are simply hauling in there to connect the well with the fuel line already in there.

Q By Mr Mills — That is, to the line which you call pipe line No. 1?

A Yes.

Q And for the purpose of taking care of any production from that well?

A That was the idea.

Q And pumping it to the Pioneer Midway? Is that correct?

A Yes.

Q Mr White, I hand you another daily drilling report. Will you examine it and state what it is?

A This report covers the period of twenty-four hours ending 12 P. M. the 26th day of February, 1912.

Q On what well?

A On well No. 1, Section 30, 30 - 24.

Q Is that an original daily drilling report signed by Mr King?

Mr Lewers — I will concede that all of these are originals that you are referring to.

A Yes; that is the original.

Q By Mr Mills — Will you please read the endorsement on that report?

A “Swabbing out oil to get enough to flood well. Fluid stands 1800 feet from surface. Well shows up better than heretofore.”

Q I hand you another paper. Will you state what that is?

A The daily drilling report covering the period of twenty-four hours ending 12 P. M. the 27th day of February, [2697] 1912, well No. 1, Section 30, 30 - 24.

Q Signed by Mr King?

A Signed by Mr King per some one else.

Q And what is the endorsement?

A “Swabbing well to accumulate enough oil to flood well. Fluid swabs down to 2200 feet from surface.”

Q I hand you another paper. State what that is.

A The daily drilling report for the twenty-four hour period ending 12 P. M. the 28th day of February, 1912, on well 1, Section 30, 30 - 24.

Q Signed by Mr King?

A Signed by Mr King per some one else, and reads as follows: “Put on pump at 2600 feet to accumulate enough oil to flood well.”

Q Those three drilling receipts cover the period

in which they were pumping oil from the well itself in order to accumulate enough to flood it, do they not?

A Yes sir.

Q And that was the usual custom on all these three wells?

A Yes; they have been pumping some of the oil out and running it back.

Q Were you ever present, Mr White, at any occasion in the Elk Hills, at any one of these three wells, when you actually saw the parties in charge pumping hot oil into the well?

A No, I was not.

Q Will you examine this sheet I show you in that bundle and state what it is?

A It is the written report of the drilling department on Elk Hills division, well 1, Section 26, 30 - 23, for March 10th and 11th, 1911.

Q Signed by whom?

A Signed by L. J. King, per W. [2698]

Q Is that one of the papers which you had custody of?

A Yes.

Q Now, will you state what the letter says about this well?

A "March 10, 3548 feet; 3168 feet of 4-1/2 inch casing. Formation 3548 blue shale; after washing mud out of hole and washing oil formation at 3342 feet to 3485 feet with drill pipe we pulled drill pipe out of hole. As last of pipe came out, gas blew nearly all of water out of hole and 30 feet above derrick. The hole bridged over with sand at 2640 feet, stop-

ping the flow. March 11, 3548 feet; 3168 feet of 4-1/2 inch casing. Formation 3548 feet, blue shale. Baling hole from top of bridge at 2640 feet: Shows a very small amount of water. Well flowed twice of its own accord."

Q Will you state what that paper is, Mr White?

A That is a report of the drilling department for March 12, 1911, on various Elk Hills wells.

Q Signed by whom?

A Signed by L. J. King, per W.

Q Will you read what it says about this well on 26 of 30 - 23?

A "Elk Hills. 26 No. 1 3548 feet; 3168 feet of 4-1/2 inch casing; formation 3548, blue shale. Unable to break bridge with bailer at 2640 feet. Well flowed twice of its own accord and once from agitation with bailer, probably two or three barrels of oil at each flow. Shows a very small amount of water."

Q What is that paper, Mr White?

A That is a report of the drilling department for March 20, 1911. It covers various Elk Hills wells.

Q Signed by whom?

A Signed by L. J. King per W. [2699]

Q Will you state what it says of this well we are discussing, on 26?

A "Elk Hills - Section 26, No. 1. 3548 feet; 3104 feet to 3548 feet 3 liner. Baling well. Commencing fluid level stood 300 feet from surface, receded to 1200 feet; now stands 700 feet and cannot lower same at present time. Shows more gas as bailing is continued."

Q Does the exhibit offered through your testimony covering this well, the record of its operation and history for the 20th day of March, have any endorsement of the gas at that point?

A No, it does not state anything in regard to the gas.

Q Now, I show you this paper, Mr White, and ask you what it is.

A That is a confirming report of the drilling department for March 25, 1911, covering various Elk Hills wells.

Q Including Section 26?

A Yes.

Q Signed by whom?

A Signed by L. J. King, per W.

Q Will you read the statement the letter contains as to 26?

A "Elk Hills, Section 26, No. 1. 3548 feet ; 3104 to 3508 3 inch liner. Formation 3548, blue shale. Well pumped intermittently; some water; also flowed. Produced approximately 75 barrels oil." Will you examine Defendants' Exhibit 173 for March 25th and state what endorsement you have placed on that exhibit.

A It looks from this as though I have —

Q Just state what appears on 25, if you can read it.

A "Pumping and drilling water."

Q Is that all that is contained on March 25th?

A That is all. [2700]

Q Then you haven't correctly given the history of this well on that date, have you, on Exhibit 173?

A I have the information shown on the next day following.

Q I say, you have not, on March 25th, given the correct information concerning the history of the operation of this well on Exhibit 173, have you?

A In making up this report I could not say whether I used this or the telegram. I would have to refer to the telegram to determine.

Q Is there a telegram covering March 25th, 1911, among the papers which you brought into court?

A I would have to look into that. (Examines telegrams.)

Q The question is whether there is any telegram among those papers which you brought into court, covering the date I have given you.

A I fail to find any.

Q And you know of none that was brought in, do you?

A No.

Q Now, the other question is still unanswered. If you will read it, Mr Examiner. (The question beginning at line 5, this page, read by the Special Examiner.) Will you answer that question?

A I can't answer that by Yes or No. I would have to answer it in my own way. I have made up this schedule from our office records. I couldn't say whether they were made up from telegrams or from reports which you have here; but at any rate the information shown in the daily report which you have

there on the 25th is shown in my schedule on the 26th, and I could not say whether that is an error in report or an error of my own. At any rate it was inadvertent.

Q What telegram do you refer to when you say that you may have examined and got your information from a telegram [2701] rather than from this report, or this written report signed by Mr King?

A My recollection is that we were at that time receiving daily telegraphic reports which we haven't brought with us.

Q That is, covering the month of March and subsequently, on that—

A I believe at that time we were securing telegraphic reports as well as the daily written reports.

Q Now, why is it that you didn't bring into court those telegrams which gave that information?

A Well, we presumed that we had everything. It was overlooked; that was all.

Mr Lewers — That is the fact, Mr Mills. There is no effort to conceal anything. Those were brought into court by me, and I am responsible for it.

Q By Mr Mills — Now, paying no attention to the excitement of counsel for the defendants, if you will kindly inform me why you didn't bring in the telegrams covering this period, if, as you say, you might have taken this information from those telegrams.

A I didn't know that they would be required.

Q Then this chart which you call Defendants' Exhibit 173 is in part made up from information

taken from telegrams which have not been produced in court to test its accuracy?

A It is possible we have some telegrams at the office that would cover a small period shown hereon.

Q On this chart 173 for Section 30?

A I would not say that is a fact or say it is not a fact.

Q Well, did you get it from a telegram? The telegram is not in the court-room nor brought in by you in support of the accuracy of this Exhibit 173.

A No; I brought no telegram here. [2702]

Q Then the chart known as Exhibit 173 was made up from information obtained from other data not brought into court?

Mr Lewers — I submit that has been answered three times.

Q By Mr Mills — Is that true, Mr White?

A It is possible that I have secured some of this information from telegrams, although you have the confirming records here.

Q That is, from telegrams not brought into court?

A Yes. I would not state that is a fact, because I am not positive there were such telegrams.

Q Then where did you get it? If you can't state it as a fact, where did you get the information?

Mr Lewers — Get what information? I object to the question as indefinite.

Q By Mr Mills—Where did you get it, Mr White, if you didn't get it from a telegram?

A Get what?

Q Do you ask me that because counsel for the defense indicated to you some question to ask me?

A You have been interrupting so much I can't get your question.

Q You say you would not swear to it as a fact that you got it from a telegram which you didn't bring into court. If you can't swear to it as a fact that you got it from a telegram which you didn't bring into court, where did you get it?

Mr Lewers — I submit that that whole question is obviously unfair. The witness answered, if you will recollect, that he may have gotten some information portrayed on those charts from other telegrams not brought here. He was not certain that he did, and his answer was not directed to any particular piece of information.

Mr Mills — I object to your constantly coaching the witness [2703] under the guise of good faith objections.

Q Will you examine Exhibit 173, which is the chart you prepared for well No. 1, Section 26, and state whether the information which you have placed there under date of March 25th is correct according to the papers which you have brought into court to support its accuracy?

Mr Lewers — I submit that question has been answered three times.

A There seems to be a discrepancy of one day in the date; but the information for the 25th is shown on the 26th on this schedule.

Q By Mr Mills — Now, will you answer the question more specifically?

A I can't do that.

Q Does the date March 25th, as shown on your chart, Defendants' Exhibit 173, give the information correctly for that day according to the papers you have brought in to support the accuracy of this chart?

A It does not agree with the date on the drilling report for the 25th.

Q Now, you made some statement that it does agree with the following day, didn't you?

A I believe it does.

Q Now, is there anything on the following day by way of endorsement on Exhibit 173, which you hold in your hands, showing that the well flowed on that day?

A I show here on this statement that the well was pumped and flowed on the 26th, instead of on the 25th, I presume. There is simply an error in the date there, Mr Mills. That is the trouble with it.

Q Mr White, will you examine this paper which I show you, and state what it is? [2704]

A That is a confirming report of the drilling department for March 31, 1911, covering various Elk Hills wells, signed by L. J. King, per W.

Q Does it cover the well we are discussing, on 26?

A 26, No. 1; yes.

Q Will you read what endorsement there is there?

A "Elk Hills, Section 26, No. 1; 3548 feet; 3104 to 3548, 3 inch liner. Pumping by air at 3050 feet;

shows a production of twenty barrels per day. No water."

Q Now, will you examine Exhibit 173 and state whether the information concerning production for March 31 has been correctly placed on that exhibit?

A I have averaged the production for March 29th, 30th and 31st under a total of 90 barrels of oil and 9 barrels of water for that period.

Q Well, I asked you whether the 31st bears any endorsement of 20 barrels per day, according to your chart.

A It does not state specifically that there was 20 barrels production on the 31st, although there was 90 barrels produced for the three days of March 29th, 30th and 31st.

Q That is up to 7 A. M. the 31st, isn't it, according to your chart ?

A Yes.

Q That is accounted for in a report previous to this, is it not, in the report of March 30th, that is, the 90 barrels that you have placed there? You may read the report for March 30th, so far as it affects Section 26.

A "Elk Hills, Section 26, No. 1. 3548 feet; 3104 to 3548 feet, 3 inch liner; formation 3548, blue shale. Stopped compressor at 3 A. M.; lowered tubing to 3050 feet. At noon put in air; started fluid with 675 pounds, dropped down to 150 pounds (run compressor until 7 A. M. March 31). Production all [2705] told, from 10 A. M. March 29 until 7 A. M. March 31, 90 barrels oil and 9 barrels water."

Q Now, that production as stated on that report for March 30th agrees with what you have put on for the 29th, 30th and 31st of March, does it not?

A I have shown the —

Q Answer the question. Does it agree, or doesn't it? (Previous question read by Special Examiner.)

A Yes.

Q You find, however, on the chart which you have prepared, no endorsement according to the report for March 31, namely, 20 barrels per day.

A From this report —

Q Just a minute. Read that question, and see if it can be answered by yes or no.

Mr Lewers — You have a right to answer in your own way, Mr White. You are making the answers; not Mr Mills.

(The question beginning at line 28, preceding page, read by Special Examiner.)

Q By Mr Mills — Can't you answer by yes or no?

A I cannot.

Q Well, will you answer this question: Do you find, about March 31st, any endorsement on Exhibit 173, under date of March 31st, of 20 barrels of oil per day?

A I do not.

Q Then it does not agree — that is, your Exhibit 173 does not agree with the report for that date, does it?

A The report for the day of March 31 does not show conclusively that the well produced 20 barrels.

Q Well, what does it say about the 20 barrels?

A It says it shows production of 20 barrels; but on the report from the — [2706]

Q I am not asking you about the report.

Mr Lewers — You may complete your answer.

A March 30th, it shows the compressor was shut down at 7 A. M. on March 31st, and that production I have shown included in the period of thirty days which is shown on the report for the day of March 30th, 1911.

Mr Lewers — You will find on examination that is correct.

Q By Mr Mills — Now, I ask you this question, again: Mr White, does your prepared chart which forms the basis of Defendants' Exhibit 173 agree with the report signed by Mr King under date of March 31st as to that well?

A I believe it does, in substance.

Q That is, it shows a production of 20 barrels per day, does it, on your chart?

A The report for the —

Q Now, answer that question, will you?

Mr Lewers — You may answer in your own way, Mr White.

Q By Mr Mills — Now, will you answer my question? Repeat the question, without all that subsequent talk, Mr Examiner. (Question beginning at line 5, this page, read by Special Examiner.) Why don't you answer?

A My chart shows the production for the day of March 31st.

Q The question is, does your chart, under date of March 31st, as reported in this report of Mr King, show a production of 20 barrels?

A It does not, because there was no daily report to show that the well produced 20 barrels.

Q Does not the daily report for March 31st, signed by Mr King, read as follows: "Section 26, well No. 1. Shows a production of 20 barrels per day, no water"?

Mr Lewers — Will you read the other one for March 31st?

A The report of March 30th shows that the well is shut [2707] down at 7 A. M. on March 31st.

Q By Mr Mills — I am asking you whether this report, dated April 2, signed by Mr King, which you have identified, does not state that for March 31st this well we are discussing shows a production of 20 barrels of oil and no water? This is what I am talking about, this specific question.

A It shows on there; yes.

Q And your chart does not show that, does it?

A My chart shows the production of the well —

Q Your chart does not show 20 barrels for March 31st, does it?

A Not specifically.

Q And what it does show is included in a report up to 7 A. M. of March 31st, as you have it, of 90 barrels of oil. Your report was dated by Mr King on March 31st and reporting for March 30th? Is not that true?

A It also reported for March 31st.

Q Will you answer that question first before you tell me what it also reported?

Mr Lewers — I submit he has answered it. What more do you want?

Mr Mills — I will tell you. I would as soon test the question out right now as to whether this witness will answer a question.

Mr Lewers — Go ahead.

Mr Mills — If you take the position that the witness shall not answer a specific question reasonably answered by yes or no, I am willing to test it right now, if that is your purpose. I supposed you wanted to facilitate this examination.

Mr Lewers — I do; but when you are attempting to create confusion by refusing to allow the witness to explain that there are two reports covering the same period and that he has [2708] taken the aggregate —

Mr Mills — This report — perhaps you have not read it.

Mr Lewers — I have.

Mr Mills — This report for March 30th runs to 7 A. M.

Mr Lewers — Of March 31st.

Mr Mills — Now, the report for March 31st is dated April 2nd and shows for the whole day of March 31st.

Mr Lewers — Which may have been before 7 A. M., when they took off the compressor.

Q By Mr Mills — Now, Mr White, I am going to give you an opportunity to answer this question, and

we will see whether you can answer it or not. If the question is unfair, the court will tell me so; but I will test this out with you now.

Mr Lewers — I except to the statement of counsel and to the manner of counsel, flourishing a pencil in a menacing manner in the direction of the witness and talking in a tone that indicates an attempt to intimidate, as unprofessional and prejudicial.

Q By Mr Mills — Now, Mr White, I ask you again whether your report shows, under date of March 31, a production of 20 barrels per day?

A It does not, specifically.

Q Yet you had a report before you, did you not, dated April 2, 1911, reporting for March 31, 1911, showing an actual production of 20 barrels per day?

A I had two reports.

Q I ask you if you didn't have that report before you? Did you have that report before you?

A I evidently did.

Q And yet you didn't put it down upon the date of March 31st, did you?

A Because I had two reports for March 31st.
[2709]

Q I didn't ask you "because". You didn't do it, as a matter of fact, did you?

A I put it down, as I —

Q Can't you answer that question? Did you put it down, is the question, on March 31, according to this report of April 2?

A I didn't put it down specifically, but I have included the total production for the three days.

Q Now, I will read into the record at this point the report of March 31, 1911, as follows:

(Said report so incorporated in the record is reproduced and bound with the Exhibits in accordance with the stipulations and orders of court.)

[2710]

Q Now, did you get any information in regard to the 31st day of March, 1911, from any telegram which was not brought into court?

A. I think not. I don't know whether there was telegrams or not. I could not say.

Q. Now, under date of March, Mr. White, 1911, on this well, in your chart known as Exhibit 173, you have placed no total for any oil whatever, have you?

A. No.

Q. Neither have you for April?

A. No. We had no official report of production.

Q. Did I ask you whether you had any official report of production?

Mr. Lewers: I object to that question as not —

Q. By Mr. Mills: Why is it you try to throw in things, Mr. White, all the time?

Mr. Lewers: I object to that question.

A. You asked me to explain the statement, and I am trying to do it, and I don't want anybody to have any misapprehension of the facts.

Q. By Mr. Mills: Did I ask you to explain anything there? I asked you one simple question, whether you placed any production, for the month of March, at the foot of that column?

A. I think the statement shows for itself that I have not.

Q. Have you any special interest in this case yourself?

A. None whatever.

Q. Will you look at that chart, Exhibit 173, and say whether, under the date of May 9, 1911, you have any showing there, at a depth of 3140 feet, showing oil, as to this well 26?

A. I have nothing there except the fact that the well was drilling.

Q. This chart I understand you to be in part prepared, first, [2711] to show actual monthly production, and also to show the history of the well itself?

A. Yes.

Q. Now, will you examine the report dated May 10, 1911, from Mr. King, for the day of May 9, as to well 26, and state whether it contains any reference to a showing of oil?

A. It refers to a show of oil between — or at 3140 feet in blue shale.

Q. Why didn't you place that on your chart, if you wanted a record of the history of the well?

A. I didn't consider it of enough importance.

Q. That is, it tended to show that the well was passing through oil formations, and you didn't consider that of any importance?

A. That had already been in oil formation and that slight showing didn't appear of any great importance.

Q. Now, under date of May 19, 1911, Mr. White,

on Exhibit 173, have you shown any oil sand formation?

A. I have not. It was not my intention to show that. The logs will show that.

Q. Will you read so much of the letter dated May 23, referring to May 19th, upon Section 26, that shows the formation which they passed through?

A. Elk Hills, 26, No. 1, 3575 feet; 3571 feet of 4-1/2 inch casing. Formation 3575, gumbo. Washing 4-1/2 inch pipe to clean rotary and from oil sand and anchoring pipe at top of hole."

Q. Was that another thing that you didn't regard as important?

A. That appears in the other exhibit that was introduced.

Q. Was it because you didn't regard it as important that you didn't put it in your graphic history of this well?

A. In making up this statement, it was not my intention to show the formations encountered, except where they were excep-[2712] tionally remarkable or exceptionally important. We have made up logs showing the formations and the oil sands, and so on, which were encountered in the well. Therefore I didn't include that detail in this report.

Q. Well, was it due to the fact, also, that you didn't regard it as important?

A. Well, I didn't — I simply set this down in a brief way, and for any further detail you would have to refer to the logs.

Q. You took occasion, in every instance where

there was any trouble in the well, to mark it on this chart, didn't you?

A. Yes.

Q. You didn't regard this as important, though, to put that down on the chart that they were in oil formation at that depth on that date?

A. In a chart of this size you could not put down the detail of the formations and the showings and one thing and another. I put down what I considered the most important features.

Q. Now, will you refer to May 24th, on Exhibit 173 referring to this well, and state whether you have shown under that date a showing of heavy oil?

A. No; I have not.

Q. Will you read, if you please, the report of May 28th, covering the date of May 24th, from Mr King?

A. "Elk Hills, 26, No. 1 3609 feet; 3572 feet 9 inches of 4-1/2 inch casing. Formation 3580 to 3593 blue shale. Shows heavy oil. 3593 to 3596, compact sand. 3596 to 3609, hard shale and gumbo. 4-1/2 inch casing landed at 3573 feet in sticky blue shale. Practically all of the formation shows a little oil from 3580 to 3593. Oil seemed to be heavy."

Q. What production does your exhibit show for the month of August, 1911, on this well 26?

A. There is no production shown. [2713]

Q. According to the papers there was an actual production that month, was there not, according to the reports received by your office?

A. There was some production; yes — some oil and water and emulsion.

Q. Now, will you foot up the figures for the month of August, 1912, that appear upon your chart and state what the total is?

A. 422.

Q. Now, I notice that you have endorsed there a showing about 15 per cent water.

A. Yes.

Q. As a matter of fact, the telegraphic reports on each of these days in the month of August, 1912, deduct the water when they send in the report, do they not, as, for example, on August 1st the report shows 27 barrels oil and 3 barrels of water. You might run through all the telegrams after that date there quickly and see if that is not true.

A. I inserted the notation showing about 15 per cent water to show that the oil produced was not entirely commercial oil.

Q. It was not to show, in other words, that there should be 15 per cent deducted from the figures you put down?

A. Not necessarily; no.

Q. Well, then, the amount of oil reported for that month was 422 barrels, as you make it now by the figures?

A. Adding up the daily estimated production would give me 422 barrels.

Q. That is taken from the telegraphic reports themselves?

A. Yes.

Q. And what amount have you placed there at the foot of that column showing actual production?

A. Showing actual monthly production to be 302 barrels. [2714]

Q. Or a difference of how much? About 90 barrels?

A. Difference of 120 barrels.

Q. Then the chart does not correctly give the production, actual production, as shown by the telegraphic reports from the field for the month of August, 1912?

A. The actual production is not shown by the telegraphic reports.

Q. I say, as shown by the telegrams.

A. The telegrams show an estimated production.

Q. Do you find in any one of these telegrams for the month of August the word "estimated" at any place? Just look them through, please.

A. No, I think I will not find the word estimate used.

Q. That is a word you assumed yourself, is it not?

A. It is always customary.

Q. I say, that is a word you inject into the telegrams yourself, by assumption?

A. Yes. That is customarily the case.

Q. So that the chart constituting Defendants' Exhibit 173, for the month of August does not, at the foot of the column, show the production of oil as shown by the telegraphic reports from the field?

A. It does not, and there was no intention of so showing the monthly production.

Q. Now, is there anything on any one of these charts, which are known in this case as Defendants'

Exhibit 172, 173 and 174, to show otherwise then that the column at the foot, which you call "Actual monthly production" in each case was taken from the data which appears after that in the column?

A. It is obvious by glancing up the column that it is not the total.

Q. Well, outside of that discrepancy is there anything to [2715] show?

A. It is marked "Actual monthly production."

Q. I have stated that in my question. Is there anything to show that that marked "Actual monthly production" in the figures at the bottom, besides the discrepancy you call my attention to, is taken from anything excepting the data which appears above in each instance?

A. No. That may have been a slight clerical fault in drawing it up; but it is obvious, by glancing over the column, that it would be impossible to add together the production each day as shown in the report.

Q. Then, unless the court took the pains to add up each column and make a mathematical calculation, he would necessarily assume that the footings were the same as the monthly production shown by the date above, would he not?

A. I would not, Mr. Mills. I would not think that ordinarily a person would do that.

Q. Is there anything there to show on these charts that what you have termed the actual monthly production was taken from an entirely different source

from the data which appears in the daily entries above those columns?

A. No; there is nothing to show it in the report.

Whereupon an adjournment was taken until 2 o'clock p.m., at the same place.

On Wednesday, July 9, 1913, at 2 o'clock p.m., the further taking of testimony herein was adjourned pursuant to the adjournment : Willis N. Mills, Special Assistant Attorney-General, and A. I. McCormick, United States Attorney, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., and Jared How, Esq., appearing on behalf of the defendants.

Mr. Mills: I now object to the offer of defendants of [2716] Exhibits 172, 173 and 174, upon the ground that they and each of them constitute neither correct nor accurate summaries of either the production of oil from the wells involved and covered or purported to be covered by the exhibits, nor do they constitute a correct or accurate history of the drilling and operation of the several wells therein involved, as shown by repeated and numerous admissions on the part of the witness, W. E. White, who claims to have prepared them. Moreover, they are misleading, in this, that while the charts purport to portray a daily production, the total of the several months do not agree either with the actual daily production as shown by the daily telegraphic reports from the field, not, indeed, with the erroneously so-called daily estimates as they appear in the several columns of these exhibits. Further, it now appears from the testi-

mony of the witness, W. E. White, that these charts were made up in part from information, data, telegrams and so forth in the custody of the Associated Oil Company or the Southern Pacific Company, not produced for inspection or examination by the government so as to further test their accuracy, and in many instances are admittedly inaccurate, because of alleged mistakes and inadvertencies on the part of the compiler. It further appears from the charts that the total production of the three wells involved in these exhibits was 6,628 barrels of oil, while the actual production during the same period, as shown by the telegraphic reports from the field, was 13,103 barrels of oil. The exhibits are further objected to, upon the grounds that they constitute self-serving declarations on the part of the defendants, alleged to have been made up of data and papers of various sorts always in the custody of the defendants, and many of which, in fact the bulk of which, were written and prepared after the beginning of testimony in this suit.

Q. Now, Mr. White, I will ask you whether the diagramatic logs which form Defendants' Exhibits 175, 176 and 177, being alleged log histories of well No. 3 on Section 24, Well No. 1 on [2717] Section 26, all in Township 30 South, Range 23 East, and well No. 1 of Section 30 in Township 30 South, 24 East, were ever checked by you from the daily drilling reports?

A. They were.

Q. As to their accuracy?

A. They were; yes sir.

Q. And were prepared, as I understand you to say, by some draftsman directed by you in the office, from the reports, and afterwards checked by you?

A. Yes.

Q. Do you assert that these logs are correct and true pictures of the formations passed through, as shown by the daily drilling reports of the several wells to which they were —

A. To the best of my knowledge they are correct and in accordance with the daily drilling slips.

Q. Were these prepared for the purpose of accurately showing the formations which were passed through by the drill on the several wells to which they refer, or were they prepared for some other purpose?

A. They were prepared for the purpose of showing the formations passed through in the drilling of the different wells involved.

Q. And for no other purpose?

A. Not that I know of.

Q. By Mr. Lewers: Well, it is true, is it not, that they show perforations, and so on?

A. Well, it would show the complete history of the well in graphic style.

Mr. Mills: Well, they purport to show also, Mr. Lewers, some statements as to operations.

Mr. Lewers: Yes; that is true.

Mr. Mills: But I wanted to know what the permanent purpose [2718] of their preparation was. Now, I have found some, in fact quite a number of inaccuracies, in one of the logs, or what I conceive to be in-

accuracies. I didn't have time to examine the other two alleged logs. And I will ask you now whether you prefer either to withdraw these logs upon my statement, to later introduce, if you so desire, a log which you are satisfied is correct, as I understand you to say you have not checked them yourself, or whether you desire to stand on these logs and have us test the accuracy from the daily drilling reports now, or take a recess until tomorrow at 10 o'clock, in the interest of saving time.

Mr. Lewers: I would suggest a still better method, if there is any question about those logs — of course to to any inaccuracies I am not prepared to admit that there are any — that inasmuch as all of the data from the log slips has been introduced in evidence, as soon as a transcript of that data is prepared and in the hands of counsel, that if you still believe there are inaccuracies, that you have prepared either an outline of the inaccuracies that you have reference to or a log from this, and we will then endeavor at a later time to agree upon a log that is in full accord with the well log slips that have been introduced in evidence. That strikes me as a much better method of disposing of this matter, as I have no desire to have anything represented except what is strictly in accordance with the original record that is now in evidence.

Mr. Mills: So far as the government's case goes, we think that that the daily drilling slips, or daily drilling reports, rather, and the telegraphic communications, which have been read into the record, and such other data as were introduced to test the accu-

racy of Exhibits 172, 173 and 174 are sufficient for the government's purpose to establish — or to rebut, rather, — the contention made by the defendants that these lands are non-mineral in character, and we conceive, from our viewpoint, no reason for encumbering the re-[2719]cord with diagrammatic logs. But if you still insist on holding these in the record, I should like, before this witness is excused, to test out the accuracy be certain questions which I have.

Mr. Lewers: Then I take it you are not willing to accept my suggestion of attempting to frame or prepare a diagrammatic log that will be agreed upon by both sides as being in accord with the well records that have been introduced — the original well records.

Mr. Mills: I should be perfectly willing to do that, upon the grounds of fairness, if I thought it was necessary, as it is a perfectly fair proposition, but I see no necessity for it.

Mr. Lewers: I say, at this time I see no necessity for withdrawing them, because I am satisfied that they are substantially if not entirely correct; and, as time is pressing, I can't consent to a continuance for that purpose, because my arrangements already made for witnesses will prevent that, I am sorry to say.

Mr. Mills: Well, I would just as soon as not examine them here while we have them in court. It will take some time to go through them, because there are so many.

Mr. Lewers: Then I take it you decline to accept my proposition? Is that correct?

Mr. Mills: Well, I decline, only and solely on the ground—not because I regard your proposition as unfair. I think it is fair enough, providing I could see the necessity for introducing any such document.

Mr. Lewers: If you fail to see the necessity, I don't see why it is necessary to take the time to ask any questions about them.

Mr. Mills: Because the logs as introduced — at least one of them I have examined — is wholly inaccurate, according to my conception, after just a casual reading of it.

W. E. WHITE, recalled. CROSS-EXAMINATION resumed.

By Mr. Mills: [2720]

Q. Mr. White, there appears to be no legend on the map showing what these colors represent, unless it may be that there are some marks inside here to show that. I am now examining Defendants' Exhibit 175. I ask you what, at 240 to 250 on this log, does the words "sandy shale" mean.

A. It means that the shale showed a small amount of sandy matter.

Q. At what depth?

A. At that depth.

Q. Now, what does the word "brown" mean at 260?

A. It meant that from 200 to approximately 310 —

Q. 310?

A. — was a brown shale formation.

Q. That is 300 to where?

A. 200 to about 230.

Q. Was brown what?

A. Brown shale.

Q. From 230 to 400, what does the color there represented mean?

A. That was a sand, presumably a blue sand. You understand these wells were drilled by a rotary, in which this is more or less approximate formation. We are unable to tell exactly from one point to another just when you go out of one formation into another.

Q. This was drilled by a rotary, you say, at this point?

A. Well, I would not say as to that depth there, but as a general proposition it was a rotary hole.

Q. You don't know, as a matter of fact, that that was drilled by a rotary, do you?

A. I don't recall now just where they started a rotary in there.

Q. Now, what does the color from 400 to 825 or 820 represent? It appears to be a brown color. [2721]

A. It is a little indistinct, but I believe it is blue shale.

Q. Now, what does the color from 820 to 830 represent?

A. Those depths that we are speaking about are approximations, because we are unable to divide the scale to an exact number of feet.

Q. What does that color mean?

A. It means they ran into the sand.

Q. Now, what does the next color going down the well, which is apparently brown, mean?

A. That means a shale.

Q. From 825 feet to 870?

A. That shows a shale.

Q. Now, what does the next color mean, from 860 to 870?

A. A streak of sand.

Q. What does the next color, from that point down to 950, mean?

A. That is a shale.

Q. What does the next color mean, from 950 to 960?

A. A sand.

Q. And the next brown color, from 960 to 1080?

A. That was reported as a mud.

Q. And what does the small dotted or crossed color mean, at 1080 to 1085, or approximately, represent?

A. That was a shell streak.

Q. We have a brown color extending from there to a depth of 1600 feet, solid. What does that represent?

A. A blue shale.

Q. Then you have, at 1600 to 1605, approximately — what is that?

A. A streak of shale and hard formation.

Q. And brown beyond that. What does that mean? [2722]

A. That would be a shale again.

Q. And then another less figure beyond that. What does that mean?

A. That would be another shell or hard formation.

Q. Then you have a streak of brown. What does that mean?

A. That represents shale.

Q. And then the same figure as before, that you called shell. What does that mean?

A. A shell or hard streak.

Q. Now, from that point, which is 1630 feet to 2080 feet, you have a solid brown color. What does that represent?

A. It represents shale.

Q. What kind of shale?

A. It does not state. It was in some instances hard and some soft.

Q. From 2080 to 2085 what does the legend mean there?

A. A streak of shell or hard formation.

Q. Then the brown color from that point to 2105. What does that mean?

A. That is shale again.

Q. And the next, from 2105 to 2110?

A streak of hard shell.

Q. Then the brown from that point to 2135?

A. That was shale; brown shale.

Q. Now, from 2135 to 2140?

A. A streak of hard sand.

Q. And from that point a solid color in brown down to 2535. What does that represent?

A. That consists of a shale formation with some show of gas.

Q. Brown shale at any point?

A. It is shale; in some instances marked brown and others just shale, hard shale and soft shale.
[2723]

Q. Now, from 2535 to 2550 what does the yellow color represent?

A. A streak of hard sand.

Q. And from that point a solid color of brown to 3100 feet. What does that represent?

A. Shale; blue shale.

Q. And from 3100 to approximately 3115, what does that represent?

A. That is a sand, streak of sand.

Q. And from 3115 to 3160, what does that represent?

A. That is shale.

Q. And the next small amount?

A. About five feet of shell.

Q. Now, from that point down to 3245 feet, solid brown color, what does that represent?

A. Shale.

Q. What kind of shale?

A. It is not given.

Q. And then five feet of something else?

A. That is shell.

Q. From that point, which is 3240, a solid brown color, down to 3535, what does that mean?

A. That is blue shale, showing some sand.

Q. Now, five feet of something else represented. What is that?

A. A hard streak; shell.

Q. From that point to the alleged bottom of the well, which is 3885 feet, about, what does that represent?

A. Blue shale.

Q. Now, was it your intention, when you made this log for introduction in evidence in this case, as you have stated on direct examination, to accurately and correctly represent the forma-[2724]tions passed through, according to the daily drilling reports?

A. Yes.

Q. Mr. White, where it says, at 320, the word "blue", what does that mean?

A. It referred to the shale.

Q. Blue shale?

A. Yes; that the color was changing more to a blue than a brown. It is very hard to differentiate these.

Q. I understand. From what point to what point does the blue shale extend, according to this diagram?

A. Well, this is not drawn up in sufficient detail to tell you just the exact distance.

Q. Well, what would a man understand that to be? What do you intend that to be, by just examining this alone without reference to anything else?

A. Well, I would understand simply that the lower portion of this brown formation they were in was turning blue. There is no exact number of feet, but that the formation was changing and becoming more of a blue color than a brown.

Q. Now, at what point did it start to begin to

change to blue clay going down, according to this diagram?

A. Well, those things are impossible to tell.

Q. Well, it tells on the daily drilling report, doesn't it?

A. Well, that is a good deal of guesswork, anyway.

Q. Well, doesn't the daily drilling report for each crew, each driller on each tower, show the change of formation on the daily drilling report?

A. That is a good deal according to the idea of the driller.

Q. Well, doesn't it, in this particular case, on the drilling reports which have been brought into court supporting the accuracy of this log, or intended to support it?

A. No; I don't think it is drawn down that fine.
[2725]

Q. Doesn't the daily drilling report show at each point where the formation changes?

Mr. Lewers: You have a right to look at the report, if you desire. (Witness examines report.)

A. They are supposed to show —

Q. By Mr. Mills: I didn't ask you what they were supposed to show. I asked you if they don't show.

A. Yes; they show the supposed changes in formation.

Q. All right. Now, you have stated that the formation from 200 to 230 was brown sandy shale. I will ask you to examine the daily drilling report for

this well for July 29th, 1910, and ask you to read the statement of formation.

A. From 200 to 290, brown sandy shale; from 290 to 310, blue sandy shale.

Q. Now, you have not shown any change there at the point where the daily report shows it, have you accurately?

A. We haven't gone into detail and shown at just what point it changed from brown to blue, so that is inconsequential.

Q. No. That is, you substituted your judgment for the report itself, and held that it was inconsequential and therefore didn't make any distinction?

A. No, Mr. Mills. I have taken practically a thousand slips here to make up one sheet, and you can see yourself it would be impractical to put all those figures and the data on a sheet of that size; it would mix it up so it would be of no value.

Q. Couldn't you show very easily, on 100 feet of formation, what it was, where it began to change, in what 10 feet it changed?

A. Practically we don't consider —

Q. I didn't ask you what you considered. I asked you if you could not, mechanitelly, do such a thing as that — show the change in every 10 feet.

A. Oh, there is nothing impossible; but it is impractical. [2726]

Q. That is, you substitute your judgment as to whether it is proper or not, for what the report shows?

A. I have tried to make a diagram that is comprehensive.

Q. Now, it is perfectly possible, mechanically, for you to have placed the changes of formation on the point they occurred, within 10 feet of that place, is it not?

A. Possibly, yes.

Q. Now, I ask you to read the formation on the daily drilling report of this well for August 2, 1910.

A. "From 290 to 330, blue sand shale; from 330 to 360, blue sand."

Q. Now, you have stated that from 230 to 244 was blue sand. Why didn't you give the correct formation there on this diagram?

A. I think it shows correctly there, if that is the case.

Q. You do think so?

A. I think this 230 to approximately 400 feet is blue sand.

Q. This is 290, this formation is; from 290 to 330, blue sandy shale.

A. Well, I have shown that as blue shale.

Q. And then the daily report shows 334 to 360, blue sand. The driller makes a distinction but you have not, have you?

A. Yes.

Q. Whereabouts?

A. From 230 on that runs on another date, but you will see I have shown during that period, "blue sand".

Q. You say from 230?

A. From 230.

Q. Now, as a matter of fact, the report of the driller shows, does it not, that from 200 to 290 it was brown sandy shale? Please examine that and see.

A. I have also shown it that way.

Q. How do you now claim that from 230 on it is blue sandy [2727] shale, when the report says brown sandy shale?

A. You are talking about 330.

Q. Well, I understand. But from 290 on.

A. From 290 to 310 this report states is blue sandy shale. That is noted here as blue shale.

Q. You don't make any distinction between blue shale and blue sandy shale, do you?

A. There is none.

Q. Yet the driller thought there was one. I will ask you, Mr White, to give me the formation on the daily drilling report, of August 4th, 1910, on this well, as appears from the report itself.

A. From 410 to 435, clay.

Q. You state, however, that from 400 to 820 it is blue shale. Do you make any distinction between clay and blue shale?

A. There is no distinction, in the drilling of a well, to my notion, between blue clay and blue shale. One may be a little harder than the other. That is the only difference.

Q. Yet you have had no experience in drilling wells, never had charge of drilling operations, you stated this morning, and you are willing to substitute your own judgment, in making up this log as a faith-

ful picture of the formations, for the actual drilling reports of the drillers themselves?

A. We make up hundreds of these logs in the same way all the time, and that is the general practice, to disregard the differentiating between hard and soft clays and blue clay and blue shale. There is no possible way of determining the difference in the ground.

Q. Without going further, at this point may I ask you whether this entire log disregards, in the same way, the statements made by the drillers as to the points at which the formations change?

Mr. Lewers: I submit that is not a fair question.
[2728]

Mr. Mills: It is based on what the witness has already said.

Mr. Lewers: The witness has said —

Mr. Mills: I object to your coaching the witness.

Mr. Lewers: I am not. I am objecting to your attempt to impose upon the witness.

Mr. Mills: I am not imposing on the witness.

Mr. Lewers: I know you are not; but you are trying to.

Mr. Mills: I am taking the facts as shown by the drillers' reports, from which he says he made this log.

Q. And I again ask you whether you ignored, from time to time, all through the log, the changes from one formation to another? —simply to shorten this examination. If you say so, I will stop it.

A. We don't consider a change of formation a difference in color.

Q. I am not talking about the difference in color. I am talking about the statement you make on that log itself to indicate changes. Have you ignored, from time to time, all through the log, the drillers' reports upon the changes of formation?

A. Certainly not.

Q. You have not?

A. No. If I had, I could not have drawn up the log.

Q. Didn't you just state a little while ago that you had ignored certain things?

A. I stated that I hadn't gone into detail to put down the exact number of feet where these inconsequential changes took place.

Q. Are you a geologist yourself, Mr. White?

A. No.

Q. Or mineralogist?

A. No.

Q. And you are not a practical oil driller?

A. No. [2729]

Q. And have never had charge of practical operations of drilling for oil?

A. No. But I have spent ten years around oil wells.

Q. That is, you have been scouting for lands for the Crude Oil Company and the Associated Oil Company?

A. Not entirely.

Q. Now, will you take this slip, please, Mr. White, of date August 9, 1910, on this well?

A. I would like to add the statement that this log

was also drawn up under the supervision of Mr. W. A. Williams, our chief geologist — himself and myself — at my instigation.

Q. Do you know Mr. F. M. Anderson?

A. Yes.

Q. Did Mr. Anderson collaborate at all upon the construction of the log?

A. No.

Q. Or advise in any way about it?

A. He had nothing whatever to do with it, so far as I know.

Q. Mr. Williams understood what the log was intended to show, that is, the formations it passed through, and so forth?

A. Yes.

Q. And, with you, understood the purpose of making it, namely, to use it for any litigation which the company might have affecting these lands, particularly this litigation?

A. Yes.

Q. Kindly read the slip of August 9th, 1910, for this well.

A. From 490 feet to 508 feet, blue clay.

Q. Have you shown that on this log at any point?

A. I have shown it as blue shale, which is the same thing.

Q. That is, blue shale and blue clay are the same?

A. I believe they are, in the drilling of a well.

Q. Now, did you yourself have the say about showing the [2730] legend as to the formations passed

through, Mr. White, or was it largely controlled by Mr. Williams?

A. Well, it was made up from data which we had already prepared in Mr. Williams' office. He took that and checked it with the logs. He already had a similar log prepared, but we took that and checked it over and made a separate new tracing.

Q. That is, when Mr. Williams came in he had a log with all these colors blocked out?

A. That is it.

Q. And then you checked it and made another blueprint? Is that the idea?

A. Yes sir.

Q. So that, in fact, this was prepared by Mr. Williams before you ever saw it — that is, the tracing from which this blueprint was made?

A. Well, he had a rough log,—it was not exactly in that shape — but we made a tracing from that rough drawing.

Q. Yes, but I mean it was, as to the depths to which these colors were blocked?

A. Yes; I remember it was similar.

Q. So that, in fact, the log was prepared by Mr. Williams, in the first place, then brought over to you and checked with you, as I understand it?

A. Well, we really prepared a new log, checking with his old logs.

Q. Well, did he have more than one log to make this blueprint that I am now examining?

A. He had one office log that he keeps up, you know.

Q. Yes. So when you say "logs", you refer to —

A. These graphic logs.

Q. But you don't refer to the several logs which formed the basis of this log? [2731]

A. No.

Q. He had one log on which he blocked out the colors at the proper formations, and with the writing to the side at the depths indicated here, and from that you framed the tracing of which this is a blue-print, after checking it?

A. That was the idea.

Q. With the daily reports? Is that right?

A. As I remember it, that was about the proceeding.

Q. Now, did Mr. Williams' judgment supersede yours, on places where the drilling reports differed from the information apparently given on this log, or did your judgment prevail?

A. Well, I checked over the logs, and I don't know whether we discovered any discrepancies or not, now, or made any changes, but as a general thing our opinions coincided.

Q. Did you, for instance, where a daily report says "blue clay" for a certain depth — whose judgment was it that changed it to "blue shale", or was it already "blue shale" when you got it?

A. In making up these logs it is the general custom —

Q. Now, I don't ask for any explanation. I am asking about the fact.

A. It is the custom to classify, in the office at least, clays and shales under the one general formation.

Q. Now, I didn't ask you about the custom, did I?

A. No; but I am trying to explain myself.

Q. Well, you can answer and then explain. Nobody will bar you from an explanation. I don't think this witness is concerned in making any misrepresentations at all. If I fail in courtesy, it is not because my heart is not right.

A. I don't want to give false impressions or get anything into the record that don't convey my idea.

Q. I understand the log was practically made up by Mr. Williams, or in his office, and then was checked, and the tracing [2732] made and this blueprint made from that. Is that correct?

A. That is about the proceeding, as I remember.

Q. And when you say that log which he had, and which you checked, did it contain all these writings at the exact place where they now appear on this blueprint?

A. I couldn't say as to that. We made some changes which in checking it over we found some discrepancies that were corrected.

Q. But, in this particular instance, where from 520 feet to 575 feet, on August 13, where the daily drilling report gives "blue clay" and this log does not show it but calls it "blue shale" — was that on the log which Mr. Williams brought in, or was that one of the changes that was made?

A. I can't remember the detail of the thing now. It is our practice, though, to classify shales and clays

under the same coloring, in coloring a thing of that kind.

Q. You don't pretend to know, yourself, that a blue shale and blue clay is exactly the same, do you?

A. To my knowledge they are practically the same. One might be a little harder than the other. That is about the only difference.

Q. Did you make any distinction between blue shale and blue sandy shale?

A. Sometimes I have shown that they had sandy streaks in there.

Q. Now, I call your attention to the daily drilling report of this well, on August 12, 1910, and ask you to read the formation.

A. From 508 to 520, blue sandy shale; from 520 to (blank) hard shale.

Q. Now, I will ask you to examine the log and see if you have indicated that on the log.

A. I have simply shown blue shale.

Q. That is, you failed to show the change from blue and sandy shale to hard shale, as indicated in the daily drilling report?

A. I have not qualified it. I have simply put it in as blue [2733] shale.

Q. Well, to get it affirmatively upon the record, the daily drilling report's statement of the change from blue sandy shale to hard shale does not appear upon the log, does it?

A. No, there is no definite point shown on the log.

Q. Now, why does not that appear on the log?

A. Well, because it was considered of very little importance.

Q. By you or by Mr. Williams?

A. By myself; and he coincided in the idea, I believe.

Q. There was no clash of distinguished opinion there?

A. No.

Q. The last drilling report of August 12, 1910, as you read it, gives the formation from 520 feet to (blank) feet, hard shale. Now, will you read the report of August 13, 1910, on the formation?

A. From 520 to 575, blue clay.

Q. Now, does the log which was introduced in your evidence, on this well, show that change to blue clay?

A. It does not show it in detail.

Q. Will you examine these daily drilling reports and state where the formation changes from blue clay to something else — at what point?

A. At 590 feet.

Q. It changes to what?

A. It is shown here as blue sandy shale.

Q. Now, how far does that blue sandy shale run, according to those daily drilling reports?

A. To 650.

Q. Then it changes, according to the report, to what?

A. To blue clay.

Q. Will you examine your log known as Exhibit

175 and see if that is indicated there in any way — those changes?

A. It is classified here as blue shale without any distinction. [2734]

Q. On the log?

A. On the graphic log.

Q. Will you examine this drilling report of August 18 and give the formations there where they change?

A. It changes at 695 from blue clay to blue sandy shale.

Q. And what does the graphic log show at that point?

A. All shown under the classification of blue shale.

Q. You made no distinction, then, between blue clay, blue sandy shale, and blue shale?

A. No.

Q. Did you have these drilling reports before you when you checked it?

A. Yes.

Q. That is, these reports I am showing you now?

A. Yes.

Q. Now, I call your attention to the daily drilling report of August 21, and ask you whether there is any change shown of formation there which does not appear upon this graphic log?

A. The drilling report shows a change from blue sandy shale to blue clay at 750 feet. I have grouped that under the title of blue shale, on the graphic log.

Q. That is, you made no distinction in that case either?

A. No.

Q. Now, will you examine these three daily drilling reports I hand you, and state where the change is made from blue clay to something else?

A. One shows a change at 750 from blue sandy shale to blue clay. The next report shows blue clay to 780 feet. The next report shows from 780 to 790, blue sandy shale. 790 to 815, blue shale.

Q. Are any of those changes indicated on this log known as Defendants' Exhibit 175. [2735]

A. They are all included under the term "blue shale".

Q. The question is, are any of those changes shown on that log?

Mr. Lewers: I submit the answer is responsive.

Q. By Mr. Mills: Now, I show you daily drilling report of this well of August 24. Will you read the formation?

A. 815 to 825, blue shale; 825 to 830, hard sand rock; 830 to 835 blue clay.

Q. Will you examine the log for those depths and tell me whether you have indicated those changes in formation?

A. I have shown the blue shale and the 5 feet hard shell or sand rock, as it is called here, and then have shown the balance of this report under the term "shale"; on the graphic log.

Q. Whereas, in the report it is known as blue shale, is it not?

A. It says blue clay

Q. Blue clay?

A. Yes.

Q. You call it shale now.

A. It is grouped under the term "shale" here.

Q. Moreover, from 825 to 830, what you call sand on the graphic log appears in the daily drilling log as hard sand rock? Is not that true?

A. Yes; but, as I said before, I could not carry these things out in any great detail on a sheet of this size.

Q. Now, why did you not indicate on the log, from 825 to 830 "hard sand rock", instead of putting down "sand", as you did?

A. Simply an abbreviation to — I believed it would convey the same meaning.

Q. That is, you call "hard sand rock", indiscriminately, "sand and rock"?

A. I call "hard sand rock" "sand", or "sand rock". [2736]

Q. You don't make any distinction between "rock" and "sand"?

A. I have not there.

Q. No. Now, you did not, also, indicate on this log a change of blue clay, did you, at 835 feet?

A. I have grouped that, again, under the term "shale."

Q. And the words "blue clay" do not appear on the log at that point, do they?

A. No.

Q. Look at this drilling report for August 25, 1910, will you, and give its formation?

A. "835 to 840, blue clay"; "840 to 850, blue sandy shale."

Q. Now, what have you on your graphic log, from 835 to 840, which on the drilling report shows "blue clay"? What do you state it on the log?

A. That has been included under the term "shale".

Q. And where, on the drilling report, from 840 to 850, it appears to be "blue sandy shale", what have you called it on the log?

A. Simply called it "shale".

Q. Now, the word "shale", as you call it, runs from what point to what other point in the depth?

A. From approximately 830 to about 870.

Q. So that you don't even on the log, show the place where the blue sandy shale stops and starts at something else, do you, within 30 feet?

A. I have included both the blue sandy shale and shale under the one term "shale" without any distinction as to just what point the change took place, if you would call it a change.

Q. That is, it didn't make much material difference to you and Mr. Williams, in making this log up, to indicate within 30 or 40 feet of where a formation changes?

A. Oh, yes, it did. It is not considered a change of forma-[2737]tion, entirely, to change from a clay to a shale. The graduation is such that there is no dividing point, no dividing line.

Q. Will you read the formation, please, on the daily drilling report for August 26th, 1910, from 875 feet to 880?

A. From 875 to 880 is a hard sand rock.

Q. Now, you have not shown that, have you, as hard sand rock, on your diagramatic log?

A. I have shown that as sand.

Q. At what point?

A. From about 875 to 880.

Q. You call it sand?

A. Sand.

Q. And the daily drilling report calls it hard sand rock? Is that correct?

A. That is correct.

Q. Now, don't you, as an oil man, make any distinction between that which is hard sand rock and that which you call sand?

A. Not for the purpose of — in making up a log of this kind.

Q. Suppose you ran into a hundred feet of oil sand, would you call it hard sand rock?

A. In that case we would call it oil sand.

Q. Do always call it oil sand in these logs?

A. We do if it contains oil, if it is an oil sand.

Q. You say you do, if it contains oil, call it oil sand?

A. Yes.

Q. Show me on this Exhibit 175 where you have designated oil sand as oil sand.

A. We haven't shown any —

Q. Have you completed your answer, Mr. White?

A. Not yet. There is no oil sand designated on the log.

Q. And yet the daily drilling reports show great depths of [2738] oil sands on this oil well, do they not?

Mr. Lewers: I object to that as not a fair statement. If you will produce the drilling reports showing any oil sand, to support your question, that is another matter; but I don't think you have a right to ask the question assuming something which is not in evidence.

Mr. Mills: I am now cross-examining the chief clerk to the chief engineer of the Associated Oil Company, and who, moreover, has confessedly admitted that he examined these daily drilling reports for the purpose of incorporating them in this diagramatic log, and which form the basis of the information, as he stated on direct examination, contained in this log, which is introduced for the benefit of the court.

Mr. Lewers: If you can find in those drilling reports anything showing oil sand, call his attention to it.

Mr. Mills: Read the question. (Previous question read by Special Examiner.)

A. I think not. Not to my knowledge.

Q. Do you now say, on your oath, that there are no oil sands shown in well No. 3 of Section 24, that we have been examining, in the daily drilling reports?

A. I have not come across any.

Q. You have not come across any?

A. I have not seen any.

Q. What do you call the formation in which the oil appears in this well?

A. You mean as to what period geologically?

A. No; I mean how would you describe it? Would you call it "shale" or "sand" or "rock"?

A. My personal opinion is that the oil is coming from the shale, possibly.

Q. Yes. [2739]

A. To some extent, at least.

Q. Now, where the drilling reports say "sand showing a little oil", do you call that an oil sand?

A. It is possibly a small streak.

Q. You would call that an oil sand, wouldn't you?

Mr. Lewers: Will you produce some such drilling report, rather than assume that it is in evidence? I think it would be an interesting thing if you did. If there are any, it is only fair to the witness you should produce them, because out of several thousand you cannot expect him to remember the details of every one of them.

(Last question read by Special Examiner.)

A. Is that related to this well?

Q. By Mr. Mills: Generally.

A. As a generality?

Q. Yes.

A. If oil was discovered as you were going through the sand, I would say that is very likely an oil sand, or a streak of oil sand.

Q. Well, "very likely". Wouldn't you term it so, in your business?

A. Yes.

Q. As a matter of terminology?

A. Yes.

Q. You would call it an oil sand, wouldn't you?

A. Yes, if it showed any quantity of oil.

Q. Well, suppose it showed a trace of oil, would you call it an oil sand?

A. It would depend on the condition of the well — whether you thought the oil was coming from that sand or from the shale above.

Q. Well, assuming that you thought it came from that sand, [2740] and there was a trace of oil, would you call that an oil sand?

A. That answers itself — if you assume it was an oil sand you would certainly call it an oil sand.

Q. I show you three drilling reports, dated, respectively, August 27, 28 and 29, 1910, and will ask you at what depths on these reports blue clay appears.

A. "880 to 900, blue clay; 900 to 920, blue clay; 920 to 930, blue sandy shale; 930 to 940, blue clay."

Q. Does this log indicate those changes at those points? I will withdraw that question. I will ask you to read, for those depths, what appears upon the log, Defendants' Exhibit 175.

A. They are classed under the term "shale" on the graphic log.

Q. And any distinction made as on the daily reports?

A. No.

Q. Will you read, on the log, please, what appears between the depths 960 and 1080, on Defendants' Exhibit 175?

A. 960 to 1080?

Q. Yes.

A. It is shown here as "mud".

Q. All right. Now, I hand you reports for August 31, September 1, September 2, September 3, 4, 5 and 6, which cover the depth from 960 to 1080 feet, and will ask you what formations they show.

A. In detail?

Q. Yes.

A. "960 to 975, blue clay; 975 to 990, blue mud; 990 to 995, blue mud; 995 to 1000 feet, blue clay; 1000 to 1015, blue mud; 1015 to 1020, blue clay; 1020 to 1035, blue mud; 1035 to 1065, blue clay; 1065 to 1080, blue clay."

Q. So that the distinctions made in the daily drilling reports were not carried out on the log which you prepared of this [2741] well between those depths?

A. Well, blue clay and blue mud are the same thing — in the drilling of a well, at least.

Q. That is, you made no distinction whatever between blue clay and blue mud, on the log?

A. No. The depths shown there, also, I would like to explain, is the amount of formation penetrated for the day. It is not always a case of distinction between one report and the other.

Q. The driller, however, notes the change from one formation to another, does he not, and reports it daily?

A. He has shown it on his daily reports both ways — clay and mud.

Q. Well, the question is whether he does not note the change on the daily reports, and the depth.

A. He has set it down in different ways, you might say.

Q. Well, does he note the change at different depths, as he goes along, on the daily reports?

A. Yes.

Q. And they are so reported to your office, or to the Associated Oil Company?

A. Yes. In explanation of that I might say there is nothing comes out of a hole but mud. It is all prepared in the form of mud.

Q. But they are able to detect the changes as they go through, as I understand it? Is that correct?

A. Oh, yes. They should be.

Q. Now, in every case, as I understand it, where blue clay, blue mud, blue shale appears on the daily drilling report, you use it indiscriminately as shale or blue shale.

A. Where a number of those minor changes occur in one group—

Q. Can't you answer that question without an explanation?

A. I couldn't say that in every case I have done that.

Q. Well, have you in any case, or in substantially most of [2742] the cases?

A. In many cases I have grouped the consecutive stratas of clay and shale and mud under the one term "shale."

Q. Or "blue shale?"

A. Or "blue shale"; whatever the color might be, the general color. It is impossible to go into details on a log of that character.

Q. You say "It is impossible to go into details." Couldn't a log be made showing the change every 10 feet?

A. It could be; but I made this up —

Q. Couldn't it be made, as a physical fact, every 10 feet?

A. Yes; but it wouldn't be practical.

Q. It would take a longer time, you mean, to do it?

A. It would —

Q. I am not asking for an explanation. I am asking if you could not, mechanically, do it, on this log.

Mr. Lewers: Mr. White is entitled to give his judgment and explanation.

Mr. Mills: He is not entitled to give any explanation until he answers the question.

Mr. Lewers: You are entitled to answer in your own way. You are the witness, and not Mr. Mills.

A. It could be done, of course, but it wouldn't be of any practical use, any benefit. It would serve to confuse you rather than aid you.

Mr. Mills: I move that the answer be stricken, in so far as it is a voluntary statement not responsive to the question. I am not asking your judgment upon any matter at all.

The Witness: It is not a matter of judgment at all. It is a matter of common sense.

Q. By Mr. Mills: Do you see any distinction be-

tween blue shale and blue sandy shale, in the history of a well? [2743]

A. Oh, there may be some slight difference, but in the drilling of a well it is practically impossible to differentiate the shale from sandy shale. It is simply a matter of the driller's own personal judgment in the matter.

Q. There is a distinction, however, isn't there, between blue shale and blue sandy shale?

A. Not of any great consequence.

Q. I didn't ask you about whether there was any consequence pertaining to it or not. That is a matter for the court and for argument. I ask you whether or not there is a distinction that is easily distinguishable.

A. Not in the drilling of a well, that I know of.

Q. I didn't ask you about the drilling of a well. I asked you if there was not a distinction between blue sandy shale and blue shale. You don't know anything about the drilling of a well, you say. I am asking you if there is a distinction between blue shale and blue sandy shale.

Mr. Lewers: The witness didn't say he didn't know anything about the drilling of a well. That is a mere voluntary statement of counsel, and I ask it to be stricken, as improper.

Q. By Mr. Mills: Answer the question.

A. I don't consider that there is any difference between —or, that you can tell the difference, underground, between sandy shale and shale at that depth.

Q. That is, if the driller found a distinction and

reported it, you would overrule him because he was unable to do it, you having had no experience in drilling, and he perhaps an experienced man — you would arbitrarily overrule it?

A. I would not consider it of any consequence.

Q. And in making up the log you would make no distinction between them, would you?

A. It would serve no purpose to make any distinction, that [2744] I can see.

Q I say, you would not make any distinction, would you, in making up a log?

A No; not in making up a practical working log, I would not differentiate.

Q. I didn't ask you about a practical working log. I say, in making up a log would you make any distinction between blue shale and blue sandy shale?

Mr Lewers — I assume you want something other than a practical working log, then, Mr Mills?

A In drawing up logs such as we are accustomed to drawing up, I would disregard that.

Q By Mr Mills — Notwithstanding that the driller would report the change, you would still disregard it?

A. Yes.

Q Would you make any distinction between blue shale, or what you would call blue sandy shale, and blue clay, in making up a log?

A In making up a log that was drilled with standard tools, I would.

Q Why would you?

A Because it would show a difference in the formation.

Q Well, why would that difference be shown on a log?

A There would be no practical use in doing so, but it might be just as well to show the dividing line.

Q That is, there is no reason for doing it, yet you would do it?

A I would do it because I would follow the reports.

Q Yes; but in making up a log for the purpose of evidence in a case, which ordinarily ought to be strictly according to the daily drilling reports, you would disregard it and not put it in, where it is to be submitted to the court for inspection? Is that what you mean? [2745]

A. Well, where it would occur in small streaks, as it is in this particular case, you would simply encumber the log unnecessarily to differentiate the different stratas of alternate layers of clay and shale.

Q. Well, do you call a streak of 15 feet a small streak

A. Comparatively, yes, in a well of this depth.

Q. You would call nearly 500 feet a small streak?

A. 500 feet of clay?

Q. 500 feet of formation, the same formation.

A. No; I do not.

Q. Then you would make a distinction in a case of nearly 500 feet, would you?

A. Well, I would if it was near the bottom, or near the oil formation, where it would be of more impor-

tance than the top of the well, or the surface formations, comparatively.

Q. You made no distinction, however, from a distance of 1058 to 1600 feet, or 515 feet, in this particular log, did you? Examine it and see.

A. No; I classed that as blue shale.

Q. And yet the drilling reports for that depth repeatedly change from blue clay to blue shale and blue sandy shale.

A. That is what I was explaining,—that there are so many changes that it would simply unnecessarily encumber the log.

Q. In making this log, in order to dissolve all unimportant details away, why didn't you block this out in one color and call it "Blue sandy shale" from where the surface ends to 3880 feet?

A. Because there were different characteristics in the formation, that I have noted there, that I found noted.

Q. Well but if they are so unimportant why didn't you just call it all "blue sandy shale" and be done with it, the same as you did therefor a distance of 515 feet, when the daily drilling reports show repeated changes and different formations? [2746]

A. Well, there would be no reason to differentiate between the alternate layers and small stratas and so on. In sandy shal and shale. There is no change of formation, as we consider it.

Q. But the real purpose of the log, Mr. White, as you say, was to show these changes of formation, wasn't it?

A. Well, we didn't consider that a change of formation. Going from a blue shale to a blue sandy shale — we don't consider that a change.

Q. That is, for 515 feet, where the driller reported he passed through blue clay, you are willing to call it "shale", "blue shale", because you don't see any importance in showing the difference in formation in this log? Is that correct?

A. No, that is not correct. I can see good reasons for showing important change in formation; but such changes as you spoke of as from blue clay to blue mud, and such foolishness, as I would call it, as that, should not be set down in a log of this character.

Q. Do you think it is "foolishness" to indicate a change, on a log, from blue sandy shale to blue clay?

A. No; the change I am speaking about is a change from blue clay to blue mud.

Q. Well, I am talking about blue mud. I am talking about blue sandy shale to blue clay. You regard that as an important change, don't you?

A. Not necessarily.

Q. Well, you say, "not necessarily". Is it ever an important change?

A. No; I think not.

Q. Never is?

A. Not that I know of, in a well of this depth, or at that depth. It is simply a difference between hardness.

Q. Did you discuss that matter with Mr. Williams? You mean by "Mr. Williams", Mr. W. A. Williams? [2747]

A Yes.

Q Did you discuss the matter with him as to whether you would put down this 515 feet as blue shale or blue clay?

A No; I think not. We had in mind at the time of going into great detail in making up the log, and then decided it would be better not to encumber the log with a lot of unnecessary or small detail.

Q So that the log, as it stands here, does not faithfully show in detail the changes which the daily reports show?

A It shows the changes in a practical way; only changes of moment.

Q Does it show in detail the changes which occurred in the daily reports?

Mr Lewers — I submit the log speaks for itself. That question has been asked in twenty different forms, and answered as many different times.

A It shows what I understand to be changes.

Q By Mr Mills — I ask you if it shows in detail the several changes which appear in the daily reports.

A It does not show in minute detail the several what you understand to be changes in the formation.

Q And what are termed changes in the formation in the daily reports?

A It does not go into detail as to — into minute detail as regards the changes from hard shale to soft shale and mud and clay, and so on.

Q As shown in the daily reports?

A In the instance in question.

Q And that is true as to all the reports for the whole depth of the well, is it not?

A No; I would not say that. I could not tell you, without checking it up with the logs themselves.
[2748]

Q I say, generally.

A Generally, where alternate layers of shale formation are mixed with clay, or sandy shale, it has been termed "shale" or "blue shale", or "brown shale", as the case may be.

Q Do you regard clay and boulders as blue shale or shale? Now, can you answer that by yes or no, without a long explanation?

Mr Lewers — Mr White, you are entitled to answer that in your own way, without regard to Mr Mills' attempt to direct you to give the answer in his way.

A Clay and boulders as reported in rotary drilling — it is hard to tell just what it is.

Q By Mr Mills — Did I ask you that question, whether it was hard to tell what it was? Didn't I ask you whether you regarded clay and boulders as blue shale?

A Not necessarily.

Q Do you see any distinction between a boulder and blue shale?

A Yes.

Q You do.

Mr Lewers — What kind of a boulder are you referring to, Mr Mills?

Mr Mills — The kind of boulders they found in this

blue shale, what they call blue shale. That is what I am referring to.

Mr Lewers — That is not a boulder.

Q By Mr Mills — I call your attention to daily drilling report of April 10, 1911. I will ask you to read the formation that the driller reported passing through, in this well.

A “1560 to 1570, blue clay; 1570 to 1579, clay and boulders”.

Q Will you examine this abortion, called a graphic log, [2749] and state whether or not you have indicated that change from 1570 to 1579 of clay and boulders?

Mr Lewers — Can't you examine the witness without using language that is offensive not only to the witness but to the court?

Q By Mr Mills — Did you make any distinction, at the depths indicated, from 1570 to 1579, where the clay and boulders were shown by the driller?

A I have not included any boulders. I have included the boulders under the general term “blue shale”.

Q So that where it says “clay and boulders” you call it “blue shale”, on the log?

A Yes. That, for practical working purposes, is, I think, correct.

Q Well, did it occur to you or Mr Williams that there might be some possible geological importance to that?

A We didn't consider it so, because they were

drilling with a rotary, and they didn't know what formation they were in themselves.

Q How do you know? Were you there?

A No; but it is impossible to tell, in drilling by the rotary method, just what formation they are in at any certain time.

Q Then what is the use of carrying out these formations at all — simply call it all "blue shale"?

A Unless they strike something such as an oil sand, or something of the kind.

Q Do you think a competent driller would know when he struck a boulder and passed from blue clay into a boulder?

A Yes.

Q Even with a rotary he would know that, wouldn't he?

A He might and he might not. The boulders encountered in [2750] many of these cases are shells instead of boulders as we understand it.

Q Now, I call your attention to a drilling report on this well, dated April 12th. I will ask you to read the formation the driller reported.

A "1582 to 1600, clay and boulders; 1600 to 1602, shell; 1602 to 1604, clay and boulders.

Q Will you examine your literary effort, there, and state whether you have noted those changes on that graphic log?

A No; they are not noted in detail on the graphic log.

Q What are they noted as on the log

A They are included in the term "blue shale".

Q Mr White, I hand you the report for April 13th, 1911, on this well, and ask you to read the formation the driller reported.

A "1604 to 1610, clay and boulders; 1610 to 1611, shell."

Q Have you noted those changes on the log?

A I have shown a shell from 1600 to 1605.

Q And that is wholly incorrect, according to the report, is it not?

A That would be on the day's report preceding this. This report runs from 1604 to 1610, clay and boulders. That being such a small strata there is no room to insert the formation, although we have it colored on the log to represent the general shale formation. And from 1610 to 1611 is a shell, which I have shown on the log in question as a shell.

Q Have you shown the clay and boulders there, from 1604 to 1610?

A I have answered that. That is a small streak in there, for which we had no space to write in the clay and boulders, or the name of the formation, although we have shown it in the general shale coloring on the log. [2751]

Q If you had had room there you would have put it in?

A Well, we would put in whatever classification we would put it under; yes.

Q Now, you had plenty of room up here, between the depths 1085 to 1600, to write in "clay and boulders", didn't you, at least in a hundred different places?

A Yes; but this was a change.

Q But you didn't write it in, did you?

A No; in this instance it was a change from a shell to a shale.

Q Couldn't you have carried it out on the margin to show it, if it was important?

A Instead of writing it out, we have included it in our coloring or legend of colors, for a shale formation.

Q That is, "clay and boulders" is a shale formation?

A Yes, in this particular instance.

Q But there is nothing on this log at that point to show that it is anything but shale? In fact, the log itself shows, according to your own statement, that it is shale, instead of clay and boulders? Is not that true?

A It is included under the general term —

Q Well, is not that true? Is there anything unfair about that question?

Mr Lewers — I submit he has answered it.

A It is included under the same color as shale.

Q By Mr Mills — Well, what I mean to say is this, that the log, at this particular point where the clay and boulders occur, between 1604 and 1610, would indicate that it was shale?

A Yes.

Q And not show clay and boulders? Is not that true?

A That is true.

Q In that respect, it is misleading, as to the exact forma-[2752]tion, then?

A Possibly; but it is such a small strata that it would be impractical to go into detail in that particular case.

Q It would be perfectly easy to carry that out on the margin of this log, would it not?

A All that detail could have been put in there, Mr Mills, if it was necessary.

Whereupon the further taking of testimony herein was adjourned until Thursday, July 10, 1913, at 10 o'clock A. M., at the same place.

On Thursday, July 10, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment:

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recalled, CROSS-EXAMINATION resumed.
By Mr Mills:

Q Will you examine Defendants' Exhibit 175 and state what you have shown there for a depth from 1611 to 1612 feet?

A A shell.

Q Now, what have you shown from 1612 to 1613 feet?

A That 1 foot is shown as a shell here.

Q Well, which 1 foot — from what depth to what depth?

A From 1612 to 1613.

Q That is, you make no distinction between 1611 to 1612, and 1612 to 1613?

A Well, there is such a small scale here I can't make out just what the figures are.

Q Well, whatever it is there, what formation do you call it on that log? [2753]

A I have shown it as a hard streak or hard shell.

Q Now, will you read the drilling report for the date April 14, 1911, of the formation between 1611 to 1612?

A 1611 to 1612, shell.

Q Now, I show you drilling report for the 15th day of April, from 1612 to 1613. What is that?

A 1612 to 1613, rock.

Q Your log does not show that the formation passed from shell into rock at that point, does it?

A Shell and rock are the same thing.

Q I say, your log does not show that the formation passed from shell into rock at that point, does it?

Mr Lewers — I submit the answer is responsive.

A Whenever strata of that kind, in a log drawn to that scale —

Q By Mr Mills — Did I ask you anything about strata of that kind? Have you any particular interest in evading a plain question?

A I am not intending to evade anything. I am trying to explain to you.

Q Then why don't you answer a simple question? Why do you constantly evade answering a simple, direct question?

Mr Lewers — I submit the witness has not done so. If counsel is trying to put words into the witness's mouth which will not represent the actual facts, the

witness has a right to explain, as he is responsible, on his oath, for his own testimony, and not Mr Mills.

Q By Mr Mills — Now, Mr White, the question is whether your log shows that at that point the formation changed from shell to rock?

A It does not.

Q Why didn't you answer that in the first place?
[2754]

A I wished to explain to you that there is no change — rock and shell are the same thing.

Q If you can answer the question first and make your explanation afterwards we can get along much faster.

Mr Lewers — Will you agree to give him the opportunity, and not interrupt him when he starts to make an explanation, as is your usual custom?

Q By Mr Mills — Now, Mr White, will you examine the drilling reports for April 16, and April 17, and state what they show in the way of formation?

A “April 16, 1613 to 1620, rock; April 17, 1620 to 1621, rock; 1621 to 1624, blue clay.”

Q Now, will you look at the log, Defendants' Exhibit 175, and state whether you show, in express terms, that at 1621 the formation changed from rock to blue clay? Does your log show that?

A It does not show it specifically.

Mr Lewers — If you have any explanation to make, Mr White, under Mr Mills' promise you have a right to make it.

Q By Mr Mills — That is, do you desire to volunteer anything outside of the questions I asked you?

Mr Lewers — Oh, I see!

Q By Mr Mills — Now, Mr White, will you examine the drilling report for April 18, on this well, and state what the drillers reported as the formation they passed through?

A “1624 to 1625, blue clay; 1625 to 1628, shell; 1628 to 1640, shale and boulders.”

Q Will you examine the log, bearing date with your drilling report, and state whether your log shows that the drilling operations passed through those formations at those points?

A Yes; it does show it. [2755]

Q What does it show?

A Although the blue clay is classed as shale. Then comes the shell.

Q Show me, in the first place, what shows there?

A This is the shale.

Q From where to where?

A 1624 to 1625. That was a portion of the previous day's.

Q Aren't you pointing now to 1625?

A The formation on the previous day's report is a portion of this. It is not a change; there was not one foot from 1624 to 1625.

Q Show me where you have, on your log here, from 1628 to 1640, shale and boulders.

A I class that under the hard shale.

Q I am asking you if you can show on your log the words, “Clay and boulders”, at that depth, as it appears upon the daily drilling report.

A The words "shale and boulders" appear on the drilling report.

Q I mean "shale and boulders".

A I have shown it as hard shale. I have not shown any boulders.

Q Then your log fails to show the formation as reported exactly by the drilling report, doesn't it?

A In the exact wording of the drilling report, to some extent.

Q And did you take occasion, on any of these reports, to interview the drillers whose names appear upon the daily drilling reports?

A No; I did not.

Q Or confer with them in any way as to their reports? [2756]

A. No.

Q And in this case, as in the others, you substituted your own judgment for the drillers', in making up this log — that is — in your judgment and Mr Williams' judgment?

A I would not put it just that way. There is no substitution. It is simply grouping all these different small strata into one group that would be intelligible.

Q That is, you think it would be more intelligible to put down "blue shale" for a distance of 515 feet, when it shows several changes to other formations from the daily drilling reports? Is that what you mean?

A In which particular instance do you refer to?

Q In any instance, in any stretch of 500 feet on this log.

A Well, if there is one particular stretch of 500 feet between sandstone, for instance, I would put it as blue clay. Blue clay and blue shale, to my notion, are practically the same thing, in the drilling of a well with the rotary process. The only difference is a slight difference in the hardness, possibly.

Q You would group blue clay, as I understand you, blue mud, blue sandy shale, sandy shale, and clay and boulders all under the same thing? And that you have done in this log?

A Not necessarily.

Q You have done that on this log, haven't you.

A In any one group?

Q Wherever those occurred you have always called it "blue shale", haven't you, down to a depth of 1600 feet?

A Yes; we group it under —

Q Yes. What have you there from 1640 to 1647, on Defendants' Exhibit 175?

A I have shown hard shale. [2757]

Q And that hard shale which you show there extends from what point to what point — for how many feet?

A From about 1630 —

Q To nearly 2100 feet?

A No; I have got soft shale in here. The bottom portion of this was softer.

Q Well, 2000 feet?

A In that neighborhood; yes.

Q Or about 360 feet.

A Well, I have not termed it hard shale after — the top of this shale, harder than the lower portions.

Q Well, how many feet would you say that you termed it hard shale?

A The hard shale was possibly from 1630 to in the neighborhood of 1750.

Q Now, will you read what the daily drilling report says, from 1640 to 1667 feet, for April 19, 1911, on this well, through formations which you call hard shale?

A "1640 to 1647, shale and boulders; 1647 to 1658, blue clay, 1658 to 1666, hard shale; 1666 to 1667, blue clay."

Q That is another instance where you failed to follow the daily drilling report as it was placed there by the drillers.

A Yes; I have simply grouped those under the one term "shale".

Q Will you read the daily drilling report for April 20, on this well?

A "1667 to 1710, blue clay".

Q What have you got for the depth on your log?

A I have shown that as a shale, hard shale.

Q You don't even show it as a blue shale, do you?

A I didn't distinguish it, no, except by the color. Our color scheme there is supposed to show the blue formation. [2758]

Q What color stands for blue on this color scheme of yours?

A That is maroon, or brown.

Q Doesn't this maroon or brown also stand for brown shale, the very first thing?

A Yes; that is true.

Q Yes. So that, if you were to follow out your color scheme, beginning at the top, all that is colored maroon would stand for brown shale, wouldn't it, excepting where you have changed it to something else?

A Evidently for shale; the maroon color stands for any kind of shale.

Q But you have started out by calling it "brown", haven't you?

A The brown is the first that appears in the well, yes; but all shale, upon the log, is shown in brown color, or maroon.

Q Wasn't it the fact that the reason the word "BROWN" was put in large capital letters at the top of this log was that it was put there for the purpose of making it appear to the court that all the shales you passed through, excepting where you expressly stated the color, were brown shales?

A No; there was no such intention.

Q And with the intention of making it appear that this well was not a good well because it passed through a shale, the brown shale, which through the Kern county is generally an indication of non-oil territory? Was not that your reason?

A No such intention at all, Mr Mills.

Q Why was it that you marked the word "BROWN" in larger capital letters than any other word on your color scheme?

A That was simply part of the draftman's doing,

as that particular body of shale changed from a brown to a blue.

Q I will ask you what formation was passed through from 1710 to 1743, as shown by your log. [2759]

A I have shown a shale formation.

Q What kind of a shale is that?

A I have not designated it. It is simply "shale".

Q Well, what would you say it was, without referring at all to any report? Just state what you would interpret it, you having made the log?

A I would simply give you it at this time as shale. My remembrance is it was probably blue or sandy shale.

Q Do you interpret it that way from memory?

A Partly; yes.

Q Can you show me, at any point on the diagrammatic log, Defendants' Exhibit 175, from the depth of 2000 feet to 2500 feet, which will show where boulders occurred?

A No; I have not shown any boulders between 2000 and 2500, except that I have shown hard shales and shells. .77

Q Now, if it became important in this case to know whether there was a formation of boulders at some depth between 2000 and 2500 feet, it would be impossible for the court to determine from your log where they occurred, would it not, or even to show that it did occur?

A. Yes.

Q Now, I call your attention to drilling report

of April 29, 1911, which reports on the formations passed through from 2012 to 2031, and ask you to read it.

A "2012 to 2031, soft blue shale and boulders."

Q Will you look at your diagramatic log and tell me what formation you can find was passed through from 2031 to 2056 feet, without reference to the drilling report?

A They were in a shale which graduated from soft to hard.

Q At what point, from your log, did it graduate from soft to hard? [2760]

A The figures are not shown on the diagram here.

Q Well, tell us within twenty or thirty or forty feet of where it graduated.

A Well, somewhere in the vicinity of 2040 feet.

Q "Somewhere in the vicinity".

A I should judge that from this log.

Q How much latitude do you allow, now, on each side of that 2040?

A I was allowing the amount that you mentioned.

Q 50 feet, 40 feet?

A Oh, no; somewhere in that vicinity.

Q Well, about where would you say? Where could the court determine, with any degree of accuracy, where that graduation from one shale to another occurred, from your log, without reference to any other document in this case?

A Well, I would determine from this log that it was somewhere in the vicinity of 2040 feet.

Q Might it be 2022 feet?

A From this log, I would say in the vicinity of 2040.

Q 2040.

A Somewhere in that vicinity. There are no figures shown there, but it is our practice to put it in in that way, as shown.

Q As a matter of fact, it was 2031 feet, where it started, wasn't it?

A Well, that is very close, I think, in a log of that kind.

Q That is 10 feet off, isn't it?

A 9 feet.

Q According to the drilling report.

A Yes, according to my log.

Q And then it passed into a blue shale, did it not?

A This was also a blue shale. There is no change in the [2761] formation. It is simply a graduation from a soft shale to a little harder shale, as reported by the daily drilling slips.

Q What does the diagramatic log Defendants' Exhibit 175, show from 2110 to 2125 feet?

A It shows hard shale, brown.

Q Now, will you read so much of the daily drilling report of May 4th, 1911, as discloses the formation reported by the drillers between 2110 and 2125?

A "2110 to 2125, blue shale."

Q Now, you have made a mistake there, on your log, haven't you, and put your blue shale in the wrong place? The brown shale should have followed that.

A Well this simply shows hard shale in the lower portion, or from about the neighborhood of 2120 to

2135 is marked brown, the lower portion of the shale formation.

Q When you answered the question without reference to the report, you stated that from 2110 to 2135 was brown shale, didn't you?

A. Yes.

Q Whereas, as a matter of fact, the driller reported it as blue shale, hard blue shale?

A I was mistaken in my answer there, because from 2110 to 2135, approximately, it is shown as a hard shale, with the formation from 2120 to 2135 marked brown, showing the lower portion of that shale formation was darker in color.

Q You didn't discover your mistake until you found that the report differed from the log, did you?

A Well, I think it shows on the face of it there that it is shown the way I speak of on the log.

Q Now, doesn't your log, as a matter of fact, show between 2110 to 2135, hard brown shale, and didn't you state that, the first part of the examination, when you went through that [2762] log?

A Well, the amount of formation there is hard to determine. The way it is written in here seems to show that the lower portion of the shale was brown, although it is a little hard to determine just what is intended.

Q It was not very hard to determine from this report which I hand you, was it? It gave it in exact feet? Read it.

A "2110 to 2125, shale; 2125 to 2129, hard brown shale".

Q The daily report shows it clearly, doesn't it?

A Yes. In those small graduations, though, there was no attempt to go into any such detail as that on the log.

Q In other words, no attempt to be exactly accurate on the changes of formations that you passed through?

A Yes; it was intended to be accurate, but there was no intent to represent each little change in hard or soft formation where it was considered unimportant.

Q That is, considered by whom "unimportant"?

A Considered by us in compiling.

Q That is, by you as chief clerk, and who else?

A Mr Williams, W. A. Williams, chief geologist.

Q Referring again to your diagramatic log, will you state what you showed from 2132 feet to 2137 feet?

A It shows a streak of hard sand.

Q Now, what do you show from 2137 feet to 2149?

A It is indistinct on the print here, but it looks as though it was brown shale.

Q Which word is indistinct?

A The word "shale" didn't blueprint very well.

Q The word "brown" is distinct, isn't it?

A. Yes.

Q Now, I ask you to look at the daily drilling report for May 5, 1911, and state what the driller reported between the [2763] depths 2137 to 2149, where you call that "brown shale" on the log. What did he call it?

A This report shows blue shale.

Q Just a confusion in colors on the part of the compilers, wasn't it?

A The small graduations were not gone into in detail on the graphic log.

Q In other words, you and Mr Williams got a little color-blind, when you reached the depth of 2137?

A No; there was no color-blindness at all; it was simply our intention to get up something that would be of practical value as a log.

Q That is, practical value in a railroad sense, or practical value in a geological sense?

A In a geological sense.

Q What does your diagrammatic log show as the formation from 2149 to 2155?

A That is also grouped under the classification of brown shale.

Q As a matter of fact, the drilling report for May 6th shows that it is a blue shale, doesn't it?

A Yes.

Q What have you got from 2155 to 2157?

A That two feet is also included in the brown shale classification on the log.

Q Now, what does the drilling report for that day for those depths show it to be?

A It shows hard sand.

Q Will you tell me what your log shows in formation from 2157 to 2167?

A That is included under the term "brown shale". I would like to add, further, that the entire

group of shales and hard [2764] shells, between the depths of approximately 2140 feet to about 2200 feet, was grouped, instead of going into detail as to the various stratas — was grouped under the term “brown shale”, “sand”, “shell”, and so on — one general grouping.

Q Now, you have stated, haven't you, that from 2157 to 2167 you have called it brown shale?

A It is included under that group.

Q Well, you have called it “brown shale”, haven't you?

A Yes.

Q Now, in fact, the drilling report for that depth shows that it is hard blue shale, doesn't it?

A Yes. As I said before, all these shales, in that particular formation from 2140 to about 2200, were grouped together under the term “brown shale”, “sand”, “shells”, and so on.

Q Now, why didn't you call it “blue shale”, if it was hard blue shale, instead of “brown shale”?

A Well, there was too many changes from one formation to another in there, from one color to the other, that were inconsequential, or were considered so at that time.

Q But you have made distinctions in this log in several places between blue shale and brown shale, haven't you?

A Yes, when there was some considerable quantity of it — considerable thickness.

Q But for a distance of several hundred feet you

term it all "brown shale", when, in fact, it is mostly hard blue shale, for convenience?

A I think not. I don't know just what instance you refer to of several hundred feet.

Q I am referring to the depths from 2140 to 2535 feet.

A No; there are points in between there where the color is not given; it is simply hard shale, soft shale.

Q Well, for what depth have you called it "brown shale" — [2765] from 2140 to what depth?

A Well, into the neighborhood of 2200 feet. At that point it was changed to hard shale, no color given.

Q What does the Exhibit 175 show, from 2207 to 2228?

A It simply shows that it is in the — shows here as hard shale, or a graduation from the brown shale to a hard shale.

Q As a matter of fact, it is blue shale, isn't it, according to the drilling report?

A Well, there is no color.

Q Well, isn't it a blue shale, according to the drilling report?

A Yes; the drilling report shows blue shale. There is no color given here on the log.

Q Now, will you look at the log, Mr White, and state at what point gas is shown after you pass the 2000-foot level, that is, examining Defendants' Exhibit 175?

A The first gas shown is in the neighborhood of 2420 or 2430 feet.

Q That is the neighborhood of 2420 feet?

A 2420 feet or 2430 feet.

Q It is quite important, isn't it, to show where the first gas appears in the log of a well, exactly?

A Yes; if there is any quantity of it.

Q That is, to show it exactly, where it occurs?

A Yes; we aim to show it, if there is any quantity of gas — strong — any amount of it.

Q Well, suppose it is only a light quantity of gas, don't you aim to show it exactly where it occurs?

A Not necessarily in a log of this kind. There is gas from a few feet down, generally, in most every well.

Q Was there in this well?

A Not that I know of, particularly. But we don't aim [2766] to show it on a log, unless it was something important, some important gas.

Q Aren't the drillers instructed to report promptly any gas showing in an oil well, at the exact depth?

A Yes; if it amounts to anything.

Q Well, if it does not amount to anything they are supposed not to report it, you mean?

A They usually use their own judgment.

Q That is to say, if they strike gas at any point and in their judgment it was not much gas, they wouldn't report it?

A Unless it was some considerable quantity they wouldn't, probably, bother with it.

Q Now, suppose it was in considerable quantity, what would be the importance of it.

A They would usually report it.

Q Why would you regard it as important to report it?

A Well, it shows that you are in an oil formation, for one thing — or near one — although that is not always true.

Q What do you show from 2835 to 2843 on Defendants' Exhibit 175?

A That is shown under the general classification of blue shale.

Q Do you show, at any depth between 2800 and 2900, a discovery of gas, on that log, on June 26, 1911?

A No; there is nothing shown on here to that effect.

Q Now, read the daily report for June 26, 1911, which involves the formation that I have referred to?

A "2835 to 2843, blue shale; little gas."

Q Now, will you state, for the benefit of the court, why that information was suppressed on this log, if you know?

A Simply because it was considered unimportant. They reported it as "little gas". It was not the intention to go [2767] into any detail over unimportant points.

Q Then why was it that you reported every day on the log where there was some gas?

A Because that was the first gas, as I remember it, of any amount or any quantity.

Q I thought you said that was only a "little gas", that first gas.

A I don't believe I said that.

Q You had plenty of room, didn't you, on this log, between 2800 and 2900 feet, in which there appears no writing at all, to write the word "gas", or "little gas", didn't you?

A It could have been inserted; yes.

Q And there is no other writing on that log for that hundred feet, is there?

A I would like to finish my explanation, if you will allow me.

Mr Lewers — Proceed. You have a right to.

The Witness — Well, you have got two or three questions at me now.

Mr Mills — Read the record, Mr Examiner. (Record read by Special Examiner.)

A (Continuing) No; there is nothing else shown for that 100 feet. I simply wish to add that their report of "little gas" was not considered of enough importance to insert, as we were not carrying the log in any great detail.

Q Now, in this connection I call your attention to your testimony on direct examination, page 7116 of the record, in which Mr Lewers asked you this question, referring to these diagramatic logs: "Q—I show you what purports to be such a log", and so forth. "A—It was prepared at my request, by a draftsman employed in our office, and afterwards checked with the daily reports." By that you mean these reports we [2768] have been examining?

A Yes.

Q "Checked by whom? A—Checked by myself and Mr Jeffress." then some conversation about Jef-

fress. “Q—And what was the result of that checking, as to whether or not this is an accurate representation of the results of the various reports received? A—It agreed with ther reports.” As a matter of fact, it does not agree with the reports in that respect, does it?

A It does not go into as much detail as the reports; but that was not our intention in checking it — to make it agree entirely with the details as shown in the reports — although it is substantially correct, according to our knowledge.

Q Mr White, were the Exhibits 176 and 177, which constitute the alleged diagramatic logs of the wells on Section 30, in 30 - 24, and 26, of 30- 23, made up in the same general way that you made this log from the daily reports?

A Yes. There was no attempt made to carry out the detail of small stratas.

Q And in places where this log in general has not followed in detail the daily drilling reports, the other logs may be said to do the same?

A Yes; they were made up on the same basis.

Mr Mills — Upon that statement, then, I shall object, now, to the offer by Defendants’ counsel of Exhibits 175, 176 and 177, upon the ground that they are admittedly not accurate representations of the history of the formations passed through in the several wells to which they refer, as shown on the daily drilling reports, and because they in frequent places suppress information as to the formation and in other places misrepresent the formations, and are alto-

gether inaccurate and untrustworthy. That objection is based upon the examination of Defendants' [2769] Exhibit 175 and upon the witness's statement that the other logs were compiled and prepared in the same way, with no attempt to accurately in detail represent the formations passed through as shown by the reports of the drillers made daily, and because, further, the so-called logs constituting these exhibits are really the result of a substitution of the judgment of the chief clerk of the engineer's office of the Associated Oil Company, made some two or three hundred miles away from the scene of the operations, for the judgment of the drillers themselves, who were right on the spot and had opportunity and the experience to determine the exact formations passed through by the drill. That concludes my cross-examination.

REDIRECT EXAMINATION
OF
W. E. WHITE

By Mr Lewers :

Q Mr White, was there any different method in the preparation of these logs from what is followed in the preparation of all the other logs you have had occasion to use or to assist in preparing in the Associated Oil Company's offices ?

Mr Mills — That is objected to because I believe it was asked and answered on direct examination.

Mr Lewers — You may answer.

A There was no difference in preparing these logs

from the manner of preparing practically all our other logs. We didn't aim to go into unimportant details that would only simply confuse the chart, or make it incomprehensible, almost.

Q Do you have many logs in your files?

A Yes; we have quite a number of them.

Q Would that number run into the hundreds?

A I have no custody of them myself at this time, but we [2770] have hundreds of logs of the same character.

Q And I understand you to say that in the preparation of this log you were assisted by Mr W. A. Williams, the chief geologist at that time of the Associated Oil Company?

A The logs were made up under the supervision of Mr Williams and myself.

Q Was there any effort made, or any desire, on your part or on the part of Mr Williams, as far as you know, to suppress any material or important fact in connection with those logs?

A There was not. On the contrary, we simply wanted to put down the information as we had it, as we found it on the daily drilling report.

Q Were those logs prepared under the direction of any one representing the Southern Pacific Company?

A No, they were not.

Q At whose suggestion were they prepared?

A Prepared at my own suggestion.

Q And for whose use were they prepared?

Mr Mills — I object to that, because the witness

has already answered, I think, in the first part of cross-examination, that they were prepared by him to be used in this suit, in this litigation.

Mr Lewers — You may answer.

A They were prepared at my own suggestion for the use of Mr Jeffress, who I understood was your assistant.

Q Did you, at the time you prepared those logs, have in mind their introduction as exhibits in this case?

A No, I did not.

Q Why did you suggest that they be prepared?

Mr Mills — That is objected to as wholly immaterial.

A So that you would have, or Mr Jeffress would have, a [2771] concise and complete diagrammatic log instead of the numerous drilling slips, reports.

Q By Mr Lewers — Was that true with reference to the other diagrams that have been introduced in evidence that were prepared by you?

A Yes; the same thing applies to those.

Q Were you at that time made acquainted by any one with any of the details of the controversy as to the geological formation in the Elk Hills that had been brought out in this suit?

Mr Mills — That is objected to, upon the ground that it is wholly immaterial whether he was informed of that or not.

A I had followed or read something in the papers, something of the suit, your suit, but I had no interest

in the matter or didn't take that into consideration in making up any logs at all.

Q By Mr Lewers — Well, had any suggestion come to you from any source that it was necessary or advisable to suppress any information or to misrepresent any information?

A No; certainly not.

Q Mr White, do you know whether these logs that you and Mr Williams prepared are in accordance with the general custom of preparation of logs by other companies engaged in the oil business?

Mr Mills — That is objected to as extremely suggestive and leading.

A A great many other, or some of the other, companies have different methods of preparing logs; but they practically all show the same thing. Some are more in detail than others. But our practice is not to go into any detail for stratals which are only a foot or so thick without any definite change, or change in character of hardness, and so on. At all alternate [2772] layers and stratals it is impractical and impossible to report them correctly, in the first place, by the drill, and by plotting those on the log it simply confuses instead of helps matters.

Q By Mr Lewers — Do all drillers use the same method of describing the same formation?

Mr Mills — That is objected to upon the ground that the witness is not qualified to answer the question.

A The drillers have their personal ideas in these

matters, to some extent, and two drillers may report the same formation differently.

Q By Mr Lewers — Well, have you ever heard the expression “gumbo” used by drillers in their reports?

A Yes.

Mr Mills — Objected to as immaterial.

Q By Mr Lewers — What do they mean by that?

A That is a driller’s term, or a rotary driller’s term, particularly, for blue clay, tough blue clay, or sticky blue clay.

Q Now, Mr Mills has paid a great deal of attention to some of the individual well reports which refer to “boulders”. What is a “boulder”, as referred to in that way?

A Our understanding of “boulders” in this particular well, or other wells in the Elk Hills, is that they are simply harder stratas of the same formation. They are not what is known or what you understand to be boulders such as boulders you find in a creek bottom, granite boulders, and so on; they are simply harder stratas, usually in the same formation. For instance, there may be hard sandstone struck, or sometimes they term it a “shell”; and that is our understanding of the term “boulders” — anything that is a little harder than the formation they have been in. [2773]

Q Well, could a hard patch of the shale itself, without being sand shell, be called a “boulder”, or is it called a “boulder”, by drillers?

A It would, in some cases, in a rotary well, be

called a boulder, if it was hard and caused them some trouble.

Q In case the clay or shale through which they were going didn't readily break up or mix with water, so as to come out in the form of mud, and balled up — would that be called a boulder?

A Well, I would not class that as a boulder, although in the blue clay there is sometimes found a nodular substance which, if there was any amount of it, might be termed "boulder" — simply a hard clay, harder than the rest of the formation.

Q Then I take it it is not an indication of a boulder such as you find in a creek bottom?

Mr Mills — I object to that as leading and suggestive, and an attempt to coach the witness into an answer that you desire.

A It is not my understanding that such is the case. I do not consider them as the ordinary boulders as we see them in the creek bottoms.

Q By Mr Lewers — Well, where a report of that kind came in, would it, in generally classifying the formation, be necessary to differentiate that from the surrounding shale?

Mr Mills — That is objected to, and all of these questions along this line, upon the ground that the witness has not qualified, so far, to answer such questions. He has stated he is not a driller, never drilled a well in his life, never had charge of a drilling crew, but has been looking up lands for the Associated and other oil companies.

Q By Mr Lewers — (Continuing) in the preparation of a log such as this?

A No; it wouldn't be an important detail. It would simply show that the formation was a trifle harder than that which pre- [2774] ceded something of that kind.

Q Do you know of any other instance where drillers are in the habit of reporting "boulders", or any other cause for their reporter "boulders", in your experience?

A Sometimes when they don't make the necessary amount of hole they report it as "boulders" or "hard formation", which is simply a subterfuge or excuse for not getting down enough hole in a day — although that is only done occasionally by certain drillers.

Q Mr Mills has asked you a great many questions with reference to the actual monthly production as compared with a total made by adding up all of the figures appearing in the columns on your diagrammatic chart of the history of these three wells in the Elk Hills. Now, basing your answer upon your experience in the oil fields and in the oil business, and upon your knowledge of the way in which oil is measured and production determined, if you desired to ascertain the production of a well, where would you go to get that information — to these daily telegraphic or written reports, or to some other place?

A I would not go to the daily production shown on the telegraphic reports or written reports, as that is simply an estimate. The only correct way of get-

ting the production would be, at the end of the month, to measure it up. That is our only source of information as to monthly report.

Q Now, is that true with reference to these wells in the Elk Hills only, or is it true as to other wells?

A Well, we have a report which shows the estimated production of each well, that is, in certain fields, and that is simply an estimate received daily; but, at the end of the month, our costs of production are figured on the monthly report of production and not on the estimated daily production.

Q And what is that monthly report based on — an esti-[2775]mate or a measurement?

A That is based on a measurement, taken as accurately as possible.

Q Have you had any experience in connection with the estimation of the production of wells in the field?

A Yes; I have.

Q And what experience have you had?

A Well, I have gone through the fields at different times, on making up, or assisting in making up, reports on properties, and so on, at which times it would be necessary to obtain a fairly accurate estimate of the production of those properties involved, in the Midway and Sunset fields particularly.

Q Have you any knowledge, from your own observation, of the method or methods employed in the field by drillers or superintendents to determine the estimate of daily production?

A There are various methods used. In many

cases they simply look at the well, and estimate from their knowledge of what the well should do. In other cases they will take a small receptacle — can, or something of that kind — and measure it for a two or three minute period, five minute period, and then estimate what it would do in twenty-four hours. In some cases they will have a tank to run it into. It depends on the size of the well a great deal. But the estimated production is simply to guess the information as to how the well is getting along in a general way, and not to show the actual production of the well.

Q Now, what has your observation been as to how these estimates compared generally with the actual production at the end of the month?

A Well, in the majority of cases the daily estimates are much too high, on account of not having taken out deductions for water, and a great many other causes — water, sand, froth, [2776] and all that sort of thing.

Q Well, what do you mean by “froth”?

A Sometimes, when a well is gassy, it will throw the oil out in a sort of spray or froth, accumulation of froth on top, and if you are measuring in a small can it would help to fill up your can although you would not have solid oil.

Q That is, unless you greased the inside of the can you would get more foam than oil? Is that it?

Mr Mills — That is objected to as leading and suggestive.

A Yes sir.

Q By Mr Lewers — And then, Mr White, can any

safe, or approximately safe, determination of the actual production of a well be made from these daily estimates?

A No; it would be nothing more than a generality, and a great deal would depend on the personal element of the man reporting the well. In many cases we have a report from superintendents and after we have received the monthly production we tell them to cut down the daily estimated production so that it will better agree with the monthly report.

Q Will the experience in connection with the Elk Hills wells that have been referred to, with reference to their daily and actual production differ from what you have observed in connection with other wells as to the same comparison?

Mr Mills — That is objected to, because the witness is in no position to know what the actual production is, except by hearsay.

Q By Mr Lewers — In other words, would you find, in connection with other wells, that the actual production fell below the aggregate of the estimates?

A Yes.

Mr Mills — That is objected to as leading.

A (Continuing) That is the case as a usual thing. The [2777] actual production is less than the estimate.

Q By Mr Lewers — Mr White, calling your attention to Exhibit No. 173, being the chart concerning well No. 1 in Section 26, and calling your attention particularly to the month of April, 1911, Mr Mills asked you at great length with reference to a certain

20 barrels of oil that apparently he conceived hadn't been entered upon the chart, indicating a loss of total production of 20 barrels, and I will ask you what there appears for the 1st and 2nd of April on your chart.

A The 1st of April, 20 barrels; the 2nd of April, 20 barrels.

Q I call your attention to the report dated April 3, 1911, for April 2nd, 1911, on well on Section 26 that we have been referring to, and ask you to read that. Mr Mills didn't call your attention to it.

A "Elk Hills. Section 26, No. 1 3548 feet; 3104 to 3548, 3 inch liner. Pulling out 2½ inch tubing and 1½ inch pipe used for pumping by air to learn condition in bottom of well to properly proceed to deepen."

Q Is there any report there of the production that day on that well?

A Not on April 2nd.

Q Then your chart would show a production of 20 barrels on April 2nd that does not appear upon the report? Is that correct?

A That is correct. It is evident that I have taken the date of the log instead of the date for which the production was reported.

Q That is, you have gotten your production in the wrong column? Is that right?

A I have just gotten one day ahead of time.

Q But have you reported all of the oil? Assuming that [2778] you have made the error on the

proper date, have you left out any of the production as reported?

A No. That would account for the 20 barrels Mr Mills spoke of yesterday.

Q Would these charts be misleading or confusing to any man who was familiar with the oil business and who had access to the same material that Mr Mills has had access to?

A I don't think they would be misleading in any way.

Q Was there any desire on your part to prepare them in such manner that they would be misleading to anybody?

A No. It was, on the contrary, my idea to prepare them so that they would be a proper representation of the development of that particular well, in a concise manner.

Q There are numerous references in the reports that have been read into evidence to flooding the well, swabbing, perforating, and so forth. What is the purpose in doing that sort of work in a well?

Mr Mills — That is objected to as immaterial.

A That is done in an endeavor to increase the production.

Q By Mr Lewers — Mr Mills on one occasion referred to the lowering of the pump in well No. 1 in Section 30 of 30 - 24. What is the purpose of lowering the pump in a case of that kind?

A I believe when I referred to the reports at that time it showed that the fluid level had dropped to that

depth, which made it necessary to drop the tubing to reach the oil.

Q Would that diminish the production of the well?

A No; that would serve to increase it. In fact, the only way to get any production would be by putting the tubing down into the oil.

Mr Lewers — That is all. [2779]

RECROSS EXAMINATION
OF W. E. WHITE

By Mr. Mills:

Q. The reason for pushing the pump down at that point, from the 2360 level to 2600 feet, was due to the fact that the perforations in that formation in which they had been pumping had become clogged? Isn't that it? No oil came in from the formation and they had to put the pump down.

A. That is not my interpretation of the thing, Mr. Mills. My idea is that the head was pumped off the well, necessitating the lowering of the tube.

Q. Can you explain, then, why they reperforated through that formation when they had already perforated, if the holes were open?

A. They frequently do that.

Q. Isn't it due to the fact that the perforations become clogged up and they have to reperforate?

A. In some cases that is true, but not in this particular case, is my understanding.

Q. In this particular case, after reperforating they got more oil, didn't they, at that formation, according to your own reports?

A. I have not the details of the perforations in my mind now but the general idea was that after we had pumped the well awhile and the production was disappointing, then we went in and reperforated and perforated at other points in an endeavor to secure a larger production.

Q. You know, as a matter of fact, that when that particular formation we have been discussing was reperforated the production from that formation increased at once, as shown by the daily reports?

A. Referring to this statement, it does not show that the perforating helped the well in the least.

Q. Referring to what statement? [2780]

A. This schedule.

Q. What is the number of that exhibit?

A. Exhibit No. 174.

Q. That is your chart?

A. The chart 174. It shows that the well, after first being perforated, did in the neighborhood of 50 barrels in thirty-six hours, and after the second perforation the first production noted here is 25 barrels of oil and 100 barrels of water. I don't know whether those perforations were at the same point or not, whether that was at the same point in the formation as the first one or not.

Q. Now, don't you know, as a matter of fact, of common knowledge of the oil business, that an oil well driller knows by the action of the tools themselves at the surface, as indicated at the surface, when he strikes boulders?

A. Yes, he does, when he strikes a hard formation.

Q. And you know, too, don't you, Mr. White, that a boulder in underground formation is the same as a boulder on surface formation, and is so generally understood by everybody?

A. That is not my understanding of a boulder in a rotary well.

Q. Let me ask you this question: Don't you know it is a common, everyday experience among drillers that when they strike a boulder formation, that a boulder often dents the pipe, rolls against it and dents the casing, and that they have to swedge?

A. That is true, in some localities.

Q. Now, that would not be some soft clay that struck that casing, would it? It would be a boulder.

A. I want to make myself plain. There are certain formations where there are boulders. We are talking about this particular well.

Q. Now when we strike a formation in which there are boulders, which we commonly understand them to be at the surface forma- [2781] tion, what does the driller call them—"clay" or "boulders?"

A. He would call them "boulders."

Q. Certainly.

A. But in rotary drilling we call practically all hard formation "boulders." There are two different formations that they report, and that is "gumbo" and "boulders."

Q. Now, is not shell formation a hard formation?

A. Yes.

Q. And hard sand rock a hard formation?

A. Some drillers will report hard shell or hard sandstone as a "shell." Other fellows will call it a "boulder." That is my understanding.

Q. Now, what drillers on these three deep wells of the Associated Oil Company reported "boulders" in order to show reasons for not "making hole," as you call it? What are their names?

A. I didn't accuse any one of doing that on these particular wells. That is a practice in some cases. I didn't accuse any one of doing those things on these particular wells.

Q. You have no reason to believe but that those drillers on these three wells we have been discussing reported correctly the formations, according to their own judgment, as they passed through them?

A. No; I had no reason to doubt it. I was simply speaking in generalities.

Q. And you know very well the man in charge of the operations in the Elk Hills, Mr. King, was a man of experience in the drilling of wells?

A. Yes.

Q. How much experience has he had?

A. I don't know. I presume in the neighborhood of twelve or fifteen years, from hearsay.

Q. And he is in charge of all the divisions or all the field [2782] operations of the Associated Oil Company?

A. He is in charge of the Midway division.

Q. And how many wells would that constitute that he has charge of?

A. You mean producing or drilling wells?

Q. Drilling and producing—all together.

A. Oh, at that time he possibly had eighteen or twenty; in that neighborhood.

Q. He had as many as eighteen wells—I mean in the Elk Hills—didn't he?

A. Yes. Well, that was practically all we had. We had some eighteen—you might say thirty-five all together.

Q. And do you regard Mr. King as a competent man to have charge of drilling operations?

A. Yes; I do.

Q. You have no reason to believe that he would deliberately mis-report the daily drilling operations on those wells, have you?

A. No.

Q. You said, on the first part of cross-examination, that at times the estimate of production will sometimes run over or less than the actual production, sometimes as much as 100 barrels where there was a great deal of oil. Is that still your opinion?

A. My opinion is that the estimated production is in many cases very unreliable.

Q. Well, it sometimes runs over the actual production, does it not?

A. I have seen but very few cases of that.

Q. You have seen some, have you?

A. No; I can't recall any particular case. My experience has been they usually over estimate.

Q. Didn't you say, in the first part of cross-examination, that the estimated production would

run 100 barrels over or less [2783] than the actual production on a 400 barrel well?

A. I said that that was possible; yes.

Q. Well, didn't you say it often did that on a 400 barrel well?

A. It would depend on the action of the well a great deal.

Q. Now, when you said that, you meant it, didn't you?

A. Certainly.

Mr. Lewers: As a matter of fact, he did not say that, Mr. Mills.

Mr. Mills: Well, the record will show what he said.

Q. Now, was the apparent suppression of the production of these wells in the Elk Hills due to the fact that the Associated Oil Company was under contract of royalty for the production, with the locators, and because they were required to pay so much a barrel for actual production, or was it due to the fact that the actual production was minimized for purposes of this case?

A. I don't believe there is any suppression in any way, Mr. Mills, that I know of, as to production or drilling operations in the Elk Hills.

Q. Your attention was called to this 20 barrels of oil on your chart, by Mr. Lewers, and you now find that you made a mistake and entered that item on the wrong day on your chart? Is that correct?

A. That is evidently correct; yes.

Q. Why was it, then, yesterday, on cross-exami-

nation, that you persisted in saying that the 90 barrels of oil of the last few days of the month preceding included that 20 barrels, and, as suggested by Mr. How, of counsel for defendants, that it must have included it because the well was shut down, when you now state that the well was running the next day and produced 20 barrels? Was it because you could not understand it?

A. I thought I had included the 20 barrels under the total [2784] of 90 for the three days.

Q. And did you assign that as a reason because the well was shut down?

A. That is what, in looking over the record at this time—In looking at the telegram yesterday it showed that the well was shut down on the 31st, and I assumed that the 20 barrels therefore was included in the 90.

Q. And as a matter of fact it was not shut down at all, was it? It was pumping the next day.

A. Well, the telegram of the 31st states it was shut down, I believe.

Q. The telegram of the 31st of March?

A. March, 1911.

Q. There is no telegram covering that date in this case, is there?

A. There is the written report of the operations of that date.

Q. Now, show me, on the written report under that date, where it states that the well was shut down.

A. It states here that they ran the compressor until 7 o'clock the morning of March 31st.

Q. Where does it say it was shut down?

A. We simply assumed it from that, in looking it over yesterday, that the well was shut down.

Q. Well, then, it was a matter of assumption and not a matter of fact, was it?

A. In going through hurriedly with you yesterday, that was my assumption.

Q. Have you prepared any diagramatic logs, for use by the Associated Oil Company or any of its subsidiaries, in any oil litigation in this state other than what appears in this proceeding?

A. No, not prepared for that special purpose. I have prepared a great many, and they may have been utilized for testimony, [2785] but not for that special purpose.

Q. But they were not prepared, as these were, for use in a case?

A. I didn't prepare these for use in a case.

Q. Didn't you state that Mr. Jeffress came over and told you he wanted these logs for the use of Mr. Lewers, who was conducting the defense in this case?

A. Yes; but what I mean is, to be introduced into court as an exhibit.

Q. Then, if you had understood it was to be introduced in court you would have been a little more careful about following the daily reports instead of substituting your judgment for that of the driller, wouldn't you?

A. No, not necessarily, unless I had consulted with some one who required them in a certain way.

Q. Were you subpoenaed to appear in this case.

A. No.

Q. Are you being paid by the Southern Pacific Company for appearance as a witness in this case?

A. No.

Q. Your time goes on with the Associated Oil Company, just the same, while occupying the witness stand, does it not?

A. Yes.

Q. And there will be no deduction made out of your salary, so far as you understand?

A. No.

Q. Now, from June 4th, 1912, until the latter part of August, or middle of August, of the same year, there are no daily reports on well No. 3 of Section 24 of 30-23. Where are those reports?

Mr. Lewers: I submit that has already been gone into at length; and it is not recross-examination.

A. I couldn't say for certain whether there were telegraphic [2786] reports covering that period.

Q. By Mr. Mills: I am not talking about telegraphic reports; I am talking about daily drilling reports.

A. Well, drilling had been suspended at that time.

Q. On June 4th?

A. Yes; as we understand "drilling," that well had been drilled at that time.

Q. And you then depended upon telegraphic reports from that time on?

A. Yes. There would be no further logs of the well.

Q. Where are the telegrams that are covered by these alleged confirmatory letters in 1911?

A. I couldn't say whether there were telegraphic reports during that period or not. That is quite a while back. But we aimed to bring everything we had in the line of telegraphic reports. There may have been something overlooked, but it was not our intention to do so.

REDIRECT EXAMINATION
OF W. E. WHITE

By Mr. Lewers:

Q. Mr. White, suppose a rotary struck an actual boulder of the kind you find in a creek bottom, what would happen?

A. Well, it would depend on the formation they were passing through. If they were going through a soft formation at a high rate of speed it might cause them some trouble, such as twisting off the pipe, or something of that kind; but if they are going slowly and carefully, it is possible that it wouldn't do any damage.

Q. What effect would it have on the rate of progress?

A. Oh, they would slow up and go very slowly through that formation.

Q. Well, what difference would it have if the boulder would move in the formation? [2787]

A. I couldn't say as to that. It might cause trouble with the pipe.

Q. And that trouble would appear in the reports, would it?

Mr. Mills: I object to this line of questioning. This witness has not qualified as a driller; said he never drilled a well in his life.

A. Yes.

Q. By Mr. Lewers: What experience have you had around wells?

A. Well, I have been around wells practically the last ten years in the field. I never worked on wells, but I have had a good deal of looking after wells.

Q. And in conjunction with whom?

A. In conjunction with Mr. Bell, of the Associated Oil Company, and other parties.

Q. Mr. Mills asked you whether or not there was an inaccuracy in your chart where, in one case, it spoke of 350 barrel rate for eighteen hours and whether or not that would not indicate that the twenty-four hour production was 465 barrels. What is the fact with reference to that?

Mr. Mills: I object to the question, on the ground that it is not proper redirect.

A. Upon referring back to the telegram a second time a few days ago, when Mr. Mills handed it to me, I found that it read, "350 barrel (rate)" for eighteen hours, which, to my mind, would mean approximately 270 barrels for the day. It stated that

it flowed "350 barrels rate," but it only flowed for eighteen hours; therefore the actual production for that day I would interpret as being two-thirds of the 350, or 270.

Mr. Lewers: That is all.

Mr. Mills: That is all. [2788]

WILLIAM HOOD

Seventy-first Witness for Defendants. San Francisco. July 10, 1913.

Direct Examination.

I am chief engineer of the Southern Pacific Company and have been engaged in railroad work since May 3, 1867. I began in the Sacramento office of the Central Pacific Engineering Department and since that time have been connected with the Central Pacific, California and Oregon Railroad, Southern Pacific Railroad of California, Arizona and New Mexico, Galveston, Harrisburg and San Antonio Railroad, and all branch lines connected with these roads. I have been chief engineer of the Southern Pacific Company since some time in 1884, or practically since its organization, and was chief engineer of the Central Pacific for perhaps a year before that. I have been exclusively in charge of the construction work of the Southern Pacific Company since its organization and of a great deal of the construction work of other associated companies.

I am familiar with the line of road that runs from Bakersfield to McKittrick. This was constructed from Bakersfield to Lokern in the spring and sum-

mer of 1892 and was continued from Lokern to Asphalto, now known as McKittrick, and completed I think about February, 1893. The construction from Lokern to Asphalto was an after-thought, this extension being built on account of the asphaltum business expected there. The road was constructed primarily from Bakersfield to Lokern to develop the agricultural business of that country and in particular the holdings of Miller & Lux. I planned this branch and know the purpose for which it was constructed. The branch over to Asphalto was constructed because it was represented that there would be a promising business in asphaltum. It was built with steep grades and sharp curves as we expected that the tonnage would be downhill from the asphaltum [2789] beds to the valley and built it as cheaply as we could on account of the uncertainty of the duration of any form of mining business.

This branch to Asphalto was not constructed with the idea of developing oil. At that time there was no oil development in that entire country to my knowledge.

I was acquainted with J. R. Scupham in past years. I first met him in 1868. At that time I was Assistant Engineer on the Central Pacific Railroad, Mr. S. S. Montague being the Chief Engineer. When I met Mr. Scupham he was a draftsman in the office of the resident engineer of construction at Winnemucca, Nevada. The next I knew of him he was engaged as a topographer in a preliminary survey for me on the Sacramento River. I did not know of his

whereabouts after that until early in 1872 at which time I took charge of locating and constructing the railroad line from Fresno to Bakersfield. At that time Mr. Scupham was a transit man in my party. He continued in this work until some time in the summer of 1872 when he resigned and I never knew him to be connected with the engineering department afterwards.

If Mr. Scupham had been connected with the Engineering Department after that time, I think I would have been in a position to know, although I cannot say that positively; but I didn't sign the Engineering Department rolls. Mr. Montague did that. I never knew of his being engaged as an engineer after that time.

I did not sign the engineering department pay-rolls myself until after 1883, but since that time Mr. Scupham's name has never appeared upon our roll.

Mr. Scupham was considered a bright, agreeable, well-educated man, who had a tendency to wish to appear to be well informed upon every subject on which he might be questioned or which came up. His tendency in this respect was so well known that it might be described as notorious. As an instance, when he was at work for me in 1872, a bet was made between two members of the party [2790] that within a certain length of time, perhaps forty-eight hours—a short time—he could be asked five hundred questions on sundry subjects, including meaning of words, general subjects, of all descriptions, and that in no one instance would he say that he did not

know. And the bet was won. His opinions were regarded by his associates in the manner that would be indicated by the statement I have just made. Although I don't think he was a person who would maliciously misrepresent things, in order to continuously talk, facts as to the subject made very little difference to him. It was said jestingly to him, by some one who either originated the remark or had seen it applied somewhere—not maliciously, but as a jest—that the partition between his memory and his imagination was obliterated. That was his general reputation amongst his associates. Not that he was malicious in it, but that he was voluble. I mean that he could not help talking freely on any subject that was presented, regardless of whether he knew anything about it or not, coupled with a general desire to show that he knew a great deal whenever a question was asked.

I understand that Mr. Scupham had some experience after leaving the railroad company's employ, in gold mining and the like. I never heard of his having experience in any other line of geological investigation or effort than gold mining. His opinions were not generally taken seriously by his associates.

CROSS-EXAMINATION

When the road was built to Lokern from Bakersfield in 1892 I couldn't say what individual ordered it to be built. It might have been Charles F. Crocker; it might possibly have been C. P. Huntington.

When the original owners of Central Pacific Railroad and allied roads were alive, sometimes one and sometimes another would give an order and those of us who took orders under them took the orders from anyone of them who gave the order without inquiring further. If one of the actual officers of the road—which were as I might mention, during their life time, Charles [2791] Crocker, Charles F. Crocker, Mark Hopkins, Leland Stanford for a short time and D. D. Colton and C. P. Huntington, and afterwards for a short time Timothy Hopkins, and afterwards for a short time H. E. Huntington—if any one of these men who were then alive had given an order to me to do some work on that particular branch of the road I should have gone on and built the road without inquiring whether they gave it as an officer of the Central Pacific or as an officer of the Southern Pacific Company of California, assuming as a matter of course, that they would give it as an officer of the corporation that was building the road. In 1892 all of the roads which I called the allied roads such as the Central Pacific and the Southern Pacific Company of California, etc., were then part of the Southern Pacific Company. [2792] Whenever we received an order from an executive officer of the Southern Pacific Company, who was also actually an officer of a subsidiary company it was their affairs and not ours and it frequently happened that orders were given and carried out so long as they came from an executive officer of the parent company, the

Southern Pacific Company. We made no inquiry about the Southern Pacific Company having the stock ownership control of the subsidiary companies. We were under orders from these people and we obeyed them. I knew A. N. Towne very well. He was General Manager when I knew him of the Southern Pacific of California. Mr. Charles Crocker during his life time was an officer or director, in my opinion, of the Southern Pacific Company. The agricultural interests of Miller & Lux in the vicinity of Lokern were not purely grazing. In 1890 to 1892, over to the east of Lokern for a distance of several miles, perhaps four or five miles along the line of this railroad towards Bakersfield and a considerable extent North and South thereof Miller and Lux had thrown up dikes and levees and generally were starting a very large cultivated area to such an extent that we put out warehouse tracks for them and they built warehouses along side of our railroad stations, these stations being established where they specified. We built these warehouses at the time of the construction of the road. We finished the road in February, 1893, to Asphalto, building nearly continuously with a slight stop at Lokern while it was being decided whether or not to build to Asphalto. We may have stopped at Lokern a [2793] week. I could not say precisely, as our records have been burned. It was the asphalt mining that induced us to build a road from Lokern to Asphalto. There were very large asphalt beds at Asphalto, part of which were in good order and part of which had

been burned at some time. I volunteered to Mr. Lewers my opinion of Mr. Scupham and what I know about him. Mr. Scupham, if he were asked his opinion of me, I don't think would reply that I was somewhat of a poser and I think if he is asked about my reputation as a man of volubility upon questions of which I know nothing, that he would give me a very good character. I have no idea what he would say if he were asked whether the partition between my imagination and my knowledge was completely obliterated but I think he would say it was still quite intact. I think I am taken quite seriously at all times. If a bet were made that in a given length of time if I were asked five hundred questions that I would profess knowledge upon each and every question, the bet would not be won unless they were very simple questions on which I was well informed. I have appeared in court proceedings but it is not my custom, whenever an ex-railroad man testifies in a proceeding adverse to the railroad which has formerly employed him, to go upon the stand and attack his character. I am happy to say that the occasion rarely occurs for the truthful statement of the character that I have been obliged to make no matter how painful they were to me. It is a very disagreeable duty. I very much regret having been obliged to make them. I was asked to come here. I was not served [2794] with a subpoena. Previous to being Chief Engineer of the Southern Pacific Company, my title was that of Assistant Engineer. [2795]

ROBERT H. RUSSELL, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live in Los Angeles, and have lived there since the 13th of June, last; I was born in Orange, Texas, and lived in Beaumont part of 1902 and all of 1903; I was a partner in the Gladys City Power Company for a little over a year, and am now connected with the Layne & Bowler Company, of Los Angeles, California; this company is engaged in drilling wells and manufacturing pumps for pumping; I have been night foreman of the shop since the 15th of July, last year. I was 43 years of age last June.

I was acquainted with Thomas J. Griffin, and met him in Beaumont, or rather around Spindletop in the latter part of 1902, while I was connected with the Gladys City Power Company; at that time I understood that Griffin was manager of the Spindletop Power Company and had the management of all their affairs in the oil fields; left Spindletop about the middle of 1903; he was still connected with the Spindletop Power Company; I went from there to Galveston, and since that time I have not met him. The photograph which you now show me is the Thomas J. Griffin whom I knew.

(Said photograph introduced in evidence, and marked Defendants' Exhibit No. 179.)

I was acquainted with the general reputation of Thomas J. Griffin in the community of Beaumont for truth and veracity; it was rather bad; I knew

of him through his business dealings around with everybody on Spindletop; he was not to be relief upon as to what he said.

I have no interest whatever, on one side or the other, with this case, and there is no personal difference between Griffin and myself.

CROSS-EXAMINATION
OF
ROBERT H. RUSSELL

The reason I left Texas was that I was offered a position [2796] at Bakersfield as foreman of the shop of the Bakersfield Iron Works, by Mr. W. T. Jones, a friend of mine; I first knew Mr. Jones at Beaumont, Texas, and he was superintendent of the Texas Company in Sour Lake, and had charge of their affairs; as far as I know the Texas Company was not controlled by the Southern Pacific Company or its subsidiaries; I remained in Beaumont continuously until 1900, and then went to Galveston, Texas. I worked for O. B. Greeves, who owned the machine shops, the Orange Iron Works, and remained there from 1886 to 1890, when I went to Beaumont, where I remained off and on until 1900. When I was off I was working for different companies. After I quit work for Mr. Greeve in 1900 I went to work for Charles Clark & Company in Galveston and remained with them about two years and after I left them I went to Spindletop to operate the Gladys City Power Company. I was a partner in that company. I remained with them a little over a year

when they bought my interest out; then I went to Galveston where I became interested in a pumping proposition that I was working on, a hydraulic pump. It was owned by myself [2797] and two others. It was patented. My partners' names were Arnold and Sheldon. I don't know where Arnold is now and Sheldon is an accountant for the Santa Fe Railroad. I remained in that business about one year when Mr. Arnold went broke and we just quit. I was furnishing the invention against their money. I next went to Alexandria, Louisiana, and took charge of a shop over there as Superintendent for the Enterprise Iron Works. I remained there a year and two or three months, then I and another gentleman went into the second hand machinery business in that town. We were buying and selling second hand machinery. We stayed in that business five months. It was not very successful. After our failure we went back to Beaumont, Texas, and took charge of the shop for the Texas Iron Works. I was superintendent of the shop for a time for them. I remained with them about two years and it went busted. From the time I first went into business I was broke every once in awhile. Occasionally got on my uppers. Then I went to work for the Southern Well Works in Beaumont. They were manufacturing oil well supplies. I remained with them about eighteen months. I quit because the manager and I had a falling out. Some other fellow was around telling lies. The other fellow was Mr. J. A. Wiggs. He thought that I was using my

energies in other business when it really belonged to him. He made me quit. Then I went into the strainer business, the manufacture of well strainers for both oil and water wells and manufactured those for about four months. I put up my experience [2798] against my partners' capital the same as I did in my other ventures. Then we went broke again and I then went to work for Mr. Greeve in Beaumont and I remained there until the 29th of May of last year when I came here to Bakersfield. It was during the time that I was living in Bakersfield that I became acquainted with Mr. Griffin. At that time he was in charge of the Spindletop Power Company. They were operating an air plant on top of the Spindletop for drilling oil wells by air pressure and they were furnishing compressed air for different wells. At the time I was there there were about six hundred holes on the hill and every hole represented a Company. I don't know that the Southern Pacific had any wells at Spindletop. I do not know Mr. J. B. Treadwell. I don't believe I ever saw him about any oil wells in Spindletop. I never had any occasion to meet the gentleman. I never had any occasion to fix up any machinery for him there. I never sold him any second hand machinery. I just knew Mr. Griffin while I was at Spindletop, that was all, while I was associated with the Gladys City Power Company. The Gladys City Power Company had no business whatever with the Spindletop Power Company and I had no business relations with Mr. Griffin. The Spindletop Power Company seemed to

have all the business they could attend to. I don't know how many people they were employing. I did not become intimately acquainted with Mr. Griffin. I don't know if Mr. Griffin would recognize me if he saw me. I just had a speaking, passing acquaintance with him. When you ask me if Mr. Griffin ever did me any injury my answer is, "None whatever," and as to rancor or feeling against him, I have none whatever. I am [2799] sensible of no prejudice whatever against him. He was doing a very large business in Spindletop and was sure to make bad friends in a large business of that kind. Everybody does that and I do not hold it up against Mr. Griffin that he did have some people there that were not particularly friendly to him. As a general rule he was not well thought of in the community. I do not know anything personal against him myself. All I know is his reputation amongst the people who were operating and doing business in the Spindletop. I was employed day and night in the Gladys Power Company's iron works. I had charge of the property all the time. I would pass Mr. Griffin on the Spindletop at different times. We would be around different places on the hills. He was superintendent of the Spindletop Power Company and I occupied the same position with our company. I know of the occasion when Mr. Treadwell was operating some wells in his own name there. I do not know that he was operating any in his own name there that belonged to the Spindletop Company. I do not know of any compressed air fur-

nished by Mr. Griffin to these wells of Mr. Treadwell. I do not know of the occasion when Mr. E. H. Harriman, President of the Southern Pacific Company, came out and visited the fields in Spindletop while Mr. Treadwell was in charge of some wells there. The only time I ever worked for any company that I even heard had anything to do with the Spindletop, is the Bakersfield Iron Works. I couldn't say whether or not the Texas Company that I worked for while I was there had large contracts with the Southern Pacific for oil wells. The Texas Company was an oil company. While I was there I don't know whether or not [2800] they delivered oil to the Southern Pacific Company. The first time I heard about this case was when I read it in the paper. I think that was just before I came out here. The first time that I learned that I was wanted as a witness was when Mr. Gray asked me. It was about three or four months ago. He came to the shop about 8:30 one night and he asked me if I knew Mr. Griffin. I told him I had met him at Spindletop. He did not ask me if I knew anything against Mr. Griffin. He asked me if I knew Griffin while I was at Spindletop and he asked me in the meantime if I had ever been in Beaumont. That was all the conversation I had with Mr. Gray. Then he asked me to come up here and testify. I did not discuss with him what I would testify to at any time. The next talk I had with Mr. Gray was in the King Edward's Hotel on Fifth Street in Los Angeles. That was last Saturday, a week ago in King Edward's

Hotel. I was with him about ten minutes. At that time he asked me if I would come up here to your office at any time that they would let me know and then we talked along on a friendly line, and I bid the time of day and left. I mean to say that Mr. Gray didn't know at that time what I was going to testify to; Oh No. I shouldn't imagine he would. He had no reason to. I did not tell him at any time. I didn't tell Mr. Gray at any time, either at that conversation at King Edward's Hotel, or at my first meeting with him in the power company's office, what I was going to testify to except that I knew Mr. Griffin. That is absolutely correct and I never told anybody, not even Mr. Lewers, what I was [2801] going to testify to until I came here this afternoon. When I am asked that if this last statement is as true as everything else I have testified to I can only reply that I have tried to make it all as straight as I can. That is as true as the rest of it. I do not know whether Mr. Griffin would recognize me if he saw me. I was not subpoenaed to come over here. It was not friendliness to Mr. Gray that caused me to come. I never met him but twice in my life. Mr. Lewers phoned me that he would like to have me come up here at this time. He phoned me this morning. I am living with Mr. George Allerdice at his residence, 2902 Brighton Avenue. His home phone is 72,698, and the only reason I knew that Mr. Lewers knew where to phone was that I gave Mr. Gray that phone number. That is all I told Mr. Gray. The reason that I came up

to testify was that Mr. Gray asked me if I would come up here and tell what I know. I am not being paid one cent for coming up here. At least I hope not, anyway. I certainly would not accept it if it were offered me, because I am not built that way. If it was expert testimony then I would expect to be paid for it. I do not regard this as expert testimony that I am giving. I am not an expert on reputation of people nor am I an expert on truth and veracity. I am not supposed to be. I am not a minister. I volunteered to come up here. I didn't come up here to slander Mr. Griffin. I came up here for the benefit of both parties. I know Mr. James Shaw. I knew him when I was in Spindletop. He used to have charge of some of the works on Spindletop for the Rio Bravo Oil Company. I don't know what his reputation was there. I never had any dealings with [2802] him. I have seen him there. He never did me any injury. I never heard anything about him. I never had any business dealings with Mr. Griffin. He never loaned me any money and I never loaned him any. He was doing a very large business there at the time I knew him; he was the man of the Spindletop Power Company and a man of some large affairs during the time I knew him. I cannot give you the names of the persons in Beaumont who told me that Mr. Griffin could not be believed nor can I give you their addresses because I do not remember. It was just the general opinion. I cannot give you the name of one man who told me that Mr. Griffin could not be be-

lieved. I cannot give you the name of one man in Beaumont, Texas, or any place that I have been in in Texas that said Mr. Griffin's reputation for integrity and honesty was not good nor can I give you the address of any such man. I don't remember now who I talked with at all. It is not a fact that the first thing that I ever heard against Mr. Griffin, or knew anything about him, was when Mr. Gray came to me and told me he wanted to get somebody to come up and slander Mr. Griffin and it is not a fact that never in my life have I heard of anything derogatory to Mr. Griffin until Mr. Gray suggested it. Mr. Gray did not tell me that he wanted to do something to injure Mr. Griffin's reputation because he had testified against the Southern Pacific Company in this case and he did not tell me that he was trying to dig up something for the purpose of injuring Mr. Griffin before the court and when you ask me if I never thought of Mr. Griffin until Mr. Gray spoke about him, my answer is, "I saw all this in the paper." I had no idea [2803] then of coming into court to testify. I was perfectly willing to come up here and testify against a man whose reputation I have always known and it is a fact, at the same time, that the man against whom I was to testify was a man of large affairs in business during the time I knew him and a man whose business affairs were such that I did not even know him personally, never had any business relations with him of any kind. When I am asked if I ever thought of him at all in any way until I happened to see

something in the papers, or until this man Gray came up and talked to me about him, my answer is, "I first thought of him when I saw it in the papers." Excepting for the two circumstances of seeing about this case in the paper and seeing Mr. Gray, I would never have thought of Mr. Gray in any connection. I was perfectly willing to come and tell what I knew without any recompense whatever, absolutely nothing. Mr. Gray did not caution me that I might be asked the question whether or not I was going to get some reward for my testimony. I don't want any job, I have got one and I have got two or three more that don't belong to the Southern Pacific if I want them. I don't know how Mr. Gray and Mr. Lewers knew what my testimony was going to be. As a rule in all these cases they have a set line of questions to ask and I suppose they ask them the same as anybody else does. I do not imagine that they divined what I might testify about but I say most of these cases all have a set line of questions to ask. I suppose that is the best answer I can make as to how Mr. Lewers knew what I was going to testify to. I never told [2804] Mr. Gray and Mr. Lewers what I thought about Mr. Griffin or anything about it. So far as I know they might have thought that I thought Mr. Griffin was a very fine man. I talked with Mr. Lewers last Monday in the Pacific Electric Building. It was 2 o'clock in the afternoon, I believe. I was up there fifteen or twenty minutes and he didn't ask me at that time what I thought of Mr. Griffin and I didn't tell him. I didn't

a law prohibiting the Southern Pacific Company from doing this kind of business in the State of Texas;" that he met Mr. Harriman at that time through my introduction.

I remember Mr. Harriman making a visit to Texas while I was there; Mr. Kruttschnitt telegraphed me about two or three hours before he arrived at Beaumont that if possible they wanted to go out to Spindletop. When the train came in we went out to see the wells. There were two wells that I had bought in my name for the company. We started one of the flowing. We had not at that time connected them up to distribute oil from them. There was no air connection on them; it wasn't necessary; it wasn't until the well ceased flowing. [2807]

Mr. Griffin had nothing at all to do with the operation of those wells that Mr. Harriman observed; Mr. Griffin wasn't present. That I know of. And another thing. I never introduced Mr. Griffin to Mr. Harriman. There was only one man that I did introduce to Mr. Harriman, and that was the man that I purchased the wells from. That was the only man that I introduced, and that was at the request of Mr. Harriman. I never had any such conversation with Mr. Griffin as he has related.

You read from the record that Mr. Griffin testified that I had taken several meals at his house. I don't think I ever took any meals at his house, because I don't know where his house was. I think once or twice Mr. Bass invited me to stay for lunch at the company boarding house, when I went out

with Mr. Mills to see the Spindletop Power Air Plant, if we happened to be there about noon. I don't know who ran it, whether the company or who ran it. It was on the company property and was run as a company boarding house, and the employees ate there.

Mr. Griffin testified that he had talked with me on several occasions about the lands in the Elk Hills, —what is known now locally as the Elk Hills; that the first conversation with me in regard to the California Oil fields was at my office at Gladys, and that I told him that I had just returned from the Kern River fields, and had been up on the West Side looking over lands, and had been out with a party of geologists, and had made a successful examination, and found oil sands and indications of oil from Sunset field to Coalinga, including the Elk Hills, or what was known at that time as the Buena Vista Hills. I do not recollect any such conversation. If there was a conversation, the statement is false in this as regards a geologist. I never went out with any geologist; I never employed any geologist or geologists while I was with the company. I did all the geological work myself and there is no record anywhere in the company of any geologist [2808] going with me at any time.

As far as the Elk Hills are concerned, I never had any conversation with him in regard to them, and as far as referring to the West Side, I don't think I had anything to say in regard to that. He has evi-

dently got things badly mixed, if we had any conversation at all.

I had never made any examination of the West Side or of the Elk Hills, or of any portion of that territory in company with any geologist, whether I was employed by the Southern Pacific or anybody else.

There was never any conversation with Mr. Griffin, or with anyone, at any time, respecting his going to California; I never asked him whether he would like to ship a rig, or said that I had several in California, or suggested that he put in test wells or do the necessary assessment work on some of the West Side vacant lands. I would not advise anybody to come out here. I never asked Griffin to go out to California, or to ship a rig to California, or to locate any lands, or to drill any lands.

No conversation ever took place respecting his going into an investment with me in the acquisition of any of the even-numbered sections of land in the West Side field of California; there was no conversation between Mr. Griffin and myself outside of the office on a little porch, wherein I said that the California oil fields had not yet started, and that our geologists had gone over it carefully; and I did not say that the proper thing for him to do was to get a rig, ship it out there at once, and that I would go in with him and put in the same amount of money that he and his partner Mr. Bass did, or that I would put up as much money as both of them, and for him to go there and take up the even sections, and that

I would attend to the legal part of it, and that they should do the work and we would divide equally.

There was no such conversation. In the first place, I [2809] would not make such a proposition for the very reason I could get plenty of propositions out there where people would put up all the money if I would give my time and attention to the development of it; so why should I go to work and volunteer to pay half? Then, again, as far as the geologists are concerned, we had no geologists I know of. Mr. Dumble was the geologist of the company; but I had no connection with him, no consultation with him at all.

You further say that Mr. Griffin testified that I had a large map at that time, which he presumed was two by three feet, showing the lands, starting about one township below Old Sunset, and going to Coalinga, running northwest and southeast, including the Buena Vista Hills and Lake Tulare,—a portion of Tulare—and Miller & Lux's Lake;—by Buena Vista Hills meaning what is now known as the Elk Hills, and the Buena Vista Hills,—the two groups of hills; that at that time there were unsurveyed lands shown on that map, located on the Elk Hills, about two or three townships, he did not remember just how many, but that there was quite a lot that had not been surveyed over, and which was not platted on the map; that I told him at that time that these were lands that I and geologists of the Southern Pacific Railroad had gone over, and that that was where I wanted him to go; that the

lands would be surveyed soon, when the Southern Pacific Railroad would make application for patent for the odd sections, and that I wanted him to take up the even sections.

I never had a map showing the territory from Coalinga to Sunset, a continuous map, and as I have said before, I never had any geologists with me on any of my trips. No such conversation ever took place.

Mr. Griffin did not ask me to let him have such a map; I had no such map prepared by a geologist, and did not tell Mr. Griffin that it was the railroad's property, and that I could not let it out. I had no map with a geologist's name on it, and I did [2810] not tell Mr. Griffin that I wanted him to go out on the land in the Elk Hills, or in that vicinity, as soon as it was surveyed.

I had nothing to do with the survey of that land, and do not recollect furnishing Mr. Griffin with a copy of any map; I did not have any such map, and never had; I never had a map showing the country continuous from Coalinga to Sunset; I myself prepared all the maps that I used. The map that I used was a map of the Kern River and also of McKittrick, which was lithographed, and I had colored part of it; I also had a map which was called the Miller & Lux's map of Kern County; the Coalinga maps were taken from the land department, which were blueprints, consisting of each township by itself,—not in one map.

In 1900 I also had two maps of McKittrick, published by a mining company and given away, and

they were scattered around, there were any number of them around the country, and I had put on several shadings showing the outcrops and the possibility of getting oil, and the general strike of the anticline.

(Said two maps introduced in evidence, and marked defendants' Exhibits numbers 180 and 181, respectively.)

I never had a map about two-thirds the size of the railroad map, with the townships, sections, and ranges marked, showing the Buena Vista Lake and Lake Tulare, the Buena Vista Hills and foothills of the mountains on the West Side, and showing anticlines; I did not have any such map, as testified by Mr. Griffin, or a map showing the name of a geologist, and bearing references to the anticlines or probable depths in different places in figures where oil would be struck.

There was no conversation in which I asked him to come to California and drill vacant government land adjacent to the Southern Pacific lands or lands they were going to acquire, near Coalinga, or near McKittrick; I did not point out any such lands to him on a map in section 30-23; I would not have pointed out [2811] such land, because I had no confidence in any of that country down there. If I was going to advise anyone to come out here to operate, there is many places that is more accessible and sure of getting oil than to go wildecating off to one side, as the Elk Hills is so situated. It is off the trend altogether.

I made no locations for my own benefit in any part of the territory which I held. I made no location in the McKittrick district in 1900, from which I afterwards received royalties, and which was called the Last Chance; I subsequently sold out my interest. Subsequent to 1900, in 1902 or 1903, I did not think there was any other vacant land in the vicinity of McKittrick that offered a prospect of getting oil.

I did not invite Mr. Bass or anybody else in Texas to come to California and drill wells or locate lands in the oil fields, or in any other part of that field; I would not have advised anybody that came to California to go into the Elk Hills at that time. Thomas J. Griffin did not that I know of do any construction work for me under specifications for the Southern Pacific Company; he made no trip out of Texas to Louisiana or to any States north of that for me, or on transportation procured by me.

CROSS-EXAMINATION OF J. B. TREADWELL

I do not remember the year when I placed the buff color and the other colors on the map, Defendants' Exhibit 180; it was at the time when I was working up the McKittrick district, determining the strike of the anticlinal, and the oil deposits on the outcrop; it might have been in 1900 or 1901; I quit the employ of the Southern Pacific Company as field man and geologist in 1903; those colors were placed on the map before I was superseded by Mr. Dumble,

in 1903; I could not say when the pencil line described in my direct examination was placed on Defendants' Exhibit 181; it was not placed there after I testified in this case; the Southern Pacific Company, I guess had the originals of those maps; [2812] they ought to have; it was not my custom to make duplicates of maps and give the originals to the company; I made these maps, and I think I delivered them to Mr. Dumble, copies from maps that I had; I just [2813] colored them over for his benefit; the maps constituting Exhibits 180 and 181 have been in my possession since they were made; I had them at San Francisco, and shipped them to Los Angeles, I think just before the fire, in 1906; they were in the same condition as at present; as stated before I do not remember when I put on the mark indicating the anticlinal on Exhibit 181; the buff color was placed on Exhibit 180 with a brush; I always had colorings, but I think they were left in the field; when I testified before in this case that I prepared maps showing the development of oil in various places in the territory of McKittrick, and that the duplicate maps were destroyed in my residence in San Francisco during the earthquake and fire of 1906, together with field notes running back a great many years, I testified the truth; I remember being in your office when you asked if I had any of those old maps, and I may have stated that I would make a diligent search but that I knew that everything had been destroyed in the fire of 1906, and that I went to my house and searched, but re-

ported that I found nothing; I did not to my knowledge have them in my possession at that time; I have no blank maps like that, gotten out by the company whose name appears on the margin,—Virginia Oil Company.

On Exhibit 180, describing the lands indicated on the map in buff color where I say there is oil, starting at the northwest corner, it runs diagonally northwest and southeast through Section 11, about 40 to 50 chains wide; continuing in a southeasterly direction, averaging about the same width, in section 12, 13 and portion of Section 10, Section 24; no, here is 10 over here; it would be 30-21 and 30-22; that was my opinion in 1901 and '02 where the oil was exposed and showed at that time, when I first went out there; I do not know whether the original of that map went to the Southern Pacific Company or not; I made a series of those maps showing a section like that,—the course of the strike in this township; I sent Mr. Kruttschnitt a copy like that [2814] map; it was my custom to give the originals to the company and keep the duplicates for myself.

On Defendants' Exhibit 116 I have placed the apex of the anticlinal commencing at the northerly portion of Section 11 in 30 South, 21 East; it begins in the northern portion of Section 11, a little east of the quartersection corner, on the north boundary, and runs then in a southeasterly direction, passing through Sections 12 and 13 of said township; then into Section 10, and through 20, 28 and 34, in township 30 South, 22 East, and into Section

2 of 31 South, 22 East, reaching the southeast corner of Section 2 of that section,—township; this map was made about 1901 or 1902; the legend is in my handwriting, and shows the information as I knew it then, as to oil.

This Exhibit 180 shows information that I obtained at that time; it was not made from memory, or made after 1904 because I have not been there since 1904; Mr. Dumble ought to have a map similar to this.

The legend on Exhibit 115 reads: "All shaded tracts reserved from sale because in or near oil territory. Tracts shaded **green** leased for oil development. Tracts shaded **blue** leased for oil storage. Tract shaded **yellow** operated for oil by S. P. Co." That is not in my handwriting.

The portions shaded in 30-23 are sections 3, 5, 7, 9, 13, 14, 17, the northwest quarter of 19, and all of 31.

The portions shaded in 30-24, are 1, 7, 19, 21, 23, 24, 26 and 35.

The portions shaded in 31-23 are sections 5, 9, east half of 17, 15, south half of 13, 21, 23, 25, 27, 29, 33, and 35.

The portions shaded in 31-24 are the southwest quarter of 7, 17, 15, 13, 14, 19, 20, 27, 31, 33 and 36.

As to whether on Defendants' Exhibit 115, Section 7 in 30-24 is shaded, defendants object, on the ground that it is not [2815] cross-examination as to any matters brought out in direct examination.

Not all of it is shaded; it is three-quarters of it,

in the north half and the south half; all the odd sections that appear to be surveyed in 30-23 are shaded with the exception of section 1, three-quarters of 17, and one-quarter of 19.

The map prepared by Mr. Luke indicates in itself that sections 7, 17, 19, 21, 23, 25, 27, and 35 of 30-24, appear to be in the Elk Hills; this is Defendants' Exhibit 16; in this exhibit nearly all of township 30-23 is in the Elk Hills, with the exception of the southwest half of Section 1; the northeasterly part is outside, and about half of the southwest portion of section 31.

On the map, Exhibit 115, it is indicated that there are in 30-24 at least eight sections shaded in the Elk Hills as tracts reserved from sale because in or near oil territory; it also shows that all the portions of 30-23 which are in the Elk Hills were shaded as reserved from sale because in or near oil territory, except what appear to be unsurveyed by this exhibit. In my former testimony I stated that I got the data or information upon which I made reports respecting withdrawal, leasing or sale of railroad lands in Kern County from personal examination; that is correct, and in addition to that, in making these reservations I made them in a blanket form away beyond where I ever expected to get any oil; I think I made the original colorings on the map; it looks like my work; I made the shadings from reports which I sent in from the field, not minutely, but taking a general trend; and went east because we could not tell at what depth we would get oil; the